Hospital Library

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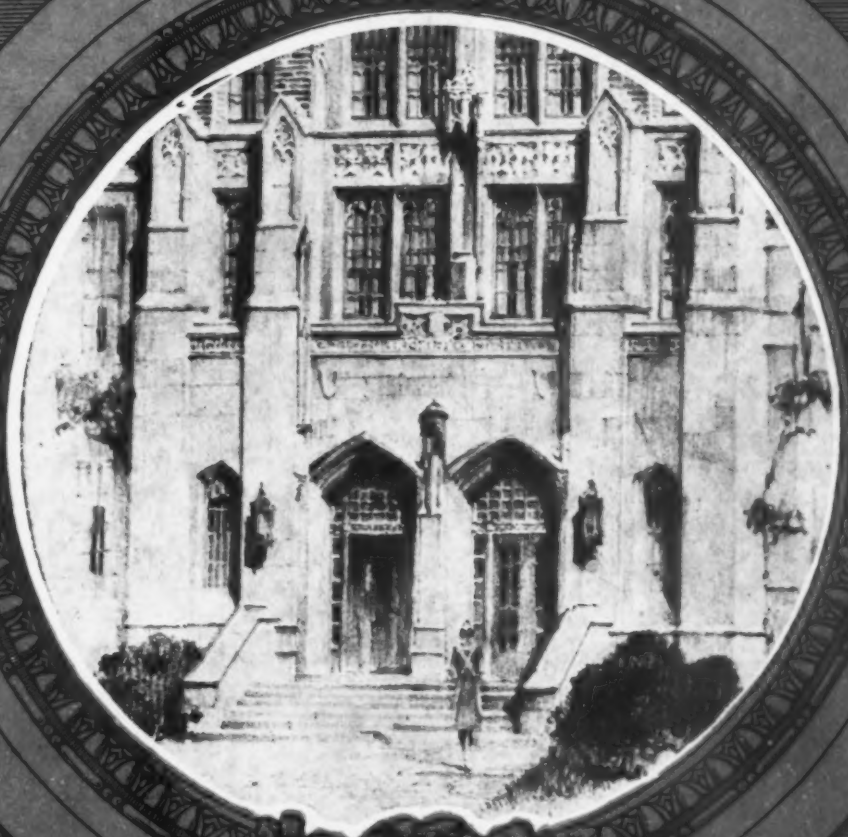

The MODERN HOSPITAL

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Baked Macedoine makes an inviting addition to any tray

For that perplexing meatless menu

... *Baked Macedoine, Libby Style*

THE patient on a meatless diet is a special problem. The resources of many dietitians are taxed to the limit to find tasty substitutes that appeal to frustrated appetites.

For that ever-recurring problem, Libby offers a new solution. Baked Macedoine, we call it. For substance—chopped hard cooked eggs, grated cheese, Libby's Tomato Juice, and two of Libby's newest vegetables, Corn and Peas. For seasoning—onion, salt, chopped parsley. It's a dish to intrigue the fagged appetite.

Libby fruits and vegetables are packed the same day they're picked. Wherever the finest grows, there you'll find a Libby kitchen.

Added only recently to the Libby line of 100 Foods, Libby's Corn, Peas, and Stringless Beans are already being served in many hospitals where Libby standards of high quality and uniform pack are so well known.

The Libby Foods that are packed in regular and special sizes for institutions are listed below.

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Baked Macedoine

Brown a small amount of onion in fat, add chopped Pimiento. Add equal parts of Libby's Tomato Juice, Libby's Peas, Corn and boiled rice. Season with salt, chopped parsley and a dash of Worcestershire. Add chopped hard cooked eggs. If necessary thicken slightly with flour. Pour in individual baking dish, and top with a little grated cheese. Brown in hot oven

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Put Libby's Corn through food chopper. Add thick cream sauce, beaten yolks of eggs, Libby's Stringless Beans, cut into one inch pieces and seasonings. Fold in stiffly beaten whites. Place baking dish in pan of warm water while baking to prevent falling

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California Asparagus	Strawberries	Olives	Chili Sauce
California Fruits	Loganberries	Pickles	Salmon
Spinach, Kraut	Red Raspberries	Mustard	Evaporated Milk
Jams, Jellies	Tomato Purée	Bouillon Cubes	Mince Meat
Pork and Beans		Beef Extract	Boneless Chicken

THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment and Administration of Hospitals, Sanatoriums and Allied Institutions.

Vol. XXXIV *January, 1930* No. 1

Correlating Hospital and Public Health Activities*

By CHARLES F. WILINSKY, M.D.
Director, Beth Israel Hospital, Boston

IN DECIDED contrast to hospitals of the days of old, hospitals of to-day are definitely accepted as a vital part of sound community organization and are concerned with the health of the community as well as with the care of the sick.

That the significant relationship of hospitals to public health may be correctly emphasized, we must define public health. C.-E. A. Winslow, professor of public health, Yale Medical School, has adequately described it as "the science and art of preventing disease, prolonging life and promoting physical health and efficiency through organized community efforts for sanitation, the control of communicable infections, the education of the individual in principles of personal hygiene, the organization of medical and nursing service for the early diagnosis and preventive treatment of disease and for the development of the social machinery that will ensure to each individual in the community a standard of living adequate for the maintenance of health."

How Hospitals Can Help

There has been a gradually increasing realization of the economic wisdom and soundness of doing everything humanly possible for the promotion of health and the extension of life. That hospitals, which constitute composite aggregations of the best medical minds, should be concerned with the health of the people is indeed fitting and inevitable. We accept as an acknowledged principle the fact that no hospital is meeting its full responsibility which does not, on the one hand, do everything possible to rehabilitate and restore to society as speedily as possible those placed under its care and, on the other hand, play an important and definite part in the development and carrying on of services that have for their objective the promotion of health and the control of disease.

Education of Personnel Important

The contributions of hospitals to public health through the medium of the education of their varied personnel are important. The training of students in medicine and of physicians in a higher standard of medical and surgical technique as well as research is reflected in the practice of sounder medicine on a more scientific plane. These factors play a significant part in the reduction of morbidity and mortality and are positive factors in the promotion of public health. The adequate and satisfactory training of nurses, who afterward come in professional contact with the sick in the hospital and in the home is an invaluable contribution and a significant factor in the promotion of public health. Properly trained nurses with public health vision who disseminate health advice to expectant mothers, give instruction on child health, and emphasize the significance of school hygiene are a material influence for better health. We must recognize the significance of medical social service. The solution of perplexing and disconcerting problems of the sick is properly appreciated by the well trained physician and surgeon who have a right conception of the value of social service and

*Read at a meeting of the New England Hospital Association, Boston, October 22-23, 1929.

are mindful of its satisfactory effect upon the sick.

It is therefore within the walls of the hospitals that we must look for the training of doctor, nurse, social worker and research student whose contributions may reasonably be expected to play significant parts in the promotion of public health.

Boston is offered as an example of a typical American community whose hospitals are conducting varied public health activities. Attention is called to the value of its prenatal clinics and lying-in service as measures for the protection of the health of the expectant mother and the newborn baby. A clinic for healthy babies and preschool children is an interesting feature of a local children's hospital of outstanding reputation.

Striking Reduction in Tuberculosis

Facilities for the early detection of tuberculosis as well as the institutionalization of the patient are valuable as a public health measure. The facilities for the examination of all possible contacts in our out-patient departments represent an outstanding contribution to the control of this disease. It is an unchallengeable fact that the enormous reduction in tuberculosis may be fittingly credited to the activities of the hospitals.

The care of the mentally ill is an enormously growing problem to those concerned with public health. Intelligent communities, mindful of the helplessness of those suffering from mental illness, are developing every possible facility not only for their comfort but for the early diagnosis of the condition. This emphasizes the importance of such clinics in out-patient hospital organization.

The problem of the cripple and the chronically sick is one of interest in the field of public health. A recent survey of the chronically sick in Boston revealed insufficient facilities for their care.

Increasing interest in the value of early diagnosis as a factor in the control of cancer has already resulted in the opening of cancer clinics as part of hospital organizations in intelligent communities.

An increasingly important relation is being developed between hospitals and health departments.[1] Forty-eight per cent of 247 city health departments studied have affiliations with hospital laboratories for the performance of varied laboratory technique. In fifty-six of these cities persons with communicable disease are hospitalized in accordance with definite arrangements with the health departments. In eighty-seven cities clinics for the treatment of tuberculosis, venereal disease and heart disease and for the promotion of infant welfare are maintained in the out-patient departments of local hospitals.

[1] Michael M. Davis, Ph.D., Hospital Administration: A Career.

We are all familiar with the part played by hospitals in the isolation of communicable disease, a fundamental and all-important problem in the field of public health.

Improvement of sanitation, the control of communicable diseases, individual appreciation of personal hygiene and better organization of medical and nursing services have made possible a marked reduction of disease and have aided greatly in prolonging life. It is nevertheless true that too many expectant mothers are dying in labor, too many newborn babies are lost before the age of one year, too many children are found entering school suffering from remediable defects and that too many youngsters need the beneficial influence of mental hygiene for the correction of improper health habits. The correction of these evils can come only with increased appreciation of the possibilities in the public health field. Too many men and women die in the prime of life; too much money is spent for the treatment of disease, and too much money and time are lost owing to absence from employment.

Ray Lyman Wilbur, Secretary of the Interior, has said that if any well situated community would adopt and put into practical everyday use all that we know of medicine and science and the control of disease, there would be such an increase in human happiness and effectiveness and such a decrease in sadness and inefficiency that in ten years that community would be the wonder of the world. He says that if we would care for the children of the community as well as the breeder cares for his blooded stock, the result would be markedly apparent in the next few generations.

A Challenge to Hospitals

This is indeed a great challenge to organized society and the part that the hospital can play in prolongation of life and the prevention of disease. Increasing emphasis on disease prevention with a greater appreciation of the opportunities in this field must impose the need of effective organized facilities. As the medical schools begin to give their students increased training in preventive medicine, the medical profession will adopt a more friendly attitude toward the well organized clinic presenting preventive facilities.

General hospitals have not, as a rule, been educated in the care of the normally healthy person but have concerned themselves more with the care of the sick. The significant warning uttered by Glenn Frank, president of the University of Wisconsin, in an address made before the American College of Surgeons, emphasizing the annual loss of almost two billion dollars because of preventable sickness, and the information received from

other reliable sources that 2 per cent of our population is constantly ill and that 3.5 per cent of the country's income is expended on illness, much of which is preventable, are pertinent facts. Doctor Frank urges the medical profession for its own protection to train and organize itself for the practice of the type of medicine that concerns itself with disease prevention.

What are some of the preventive services that might well be included within the scope of hospital service?

Public Health Problems Are Varied

Reference has already been made to the unnecessary deaths of expectant mothers and newborn babies. While there has been a material reduction in deaths of infants from gastric diseases, the number of deaths from injuries at birth and because of prematurity have remained practically stationary; there has been only a slight reduction in the deaths of mothers in connection with labor, particularly from injuries and toxemias. The advantages of proper hygienic measures during pregnancy as factors in the reduction of the staggering losses of mothers and newborn babies should again be stressed, as well as the part that hospitals can play in furnishing adequate obstetric facilities.

Clinics for infants and preschool children which play so important a part in child health are worth while community services and may well be considered as a part of out-patient practice whenever they do not duplicate existing well established services. It may be wise to emphasize the economic advantages of placing them in contact with the curative services in the out-patient department instead of isolating them. Child health services for infants and preschool children demand a number of preventive measures, such as immunization against smallpox and diphtheria, posture clinics, nutritional clinics, prophylactic dental services and mental hygiene clinics.

Emphasis should be placed on a closer and improved relationship between those who concern themselves with the problem of the corrective needs of the young school child and the facilities of our out-patient departments, so potently equipped to cope with the physical defects of children in this group. I am mindful of the services rendered by the out-patient department in the correction of physical defects in school children, and yet I am content that there is opportunity for the development of better mechanics for meeting this serious problem.

Adult life offers a fertile field for the practice of various aspects of preventive medicine which may well be carried on within the walls of the properly functioning out-patient department. It is recognized that for personal hygiene to be properly understood, there must be a background of intelligent medical diagnosis and opinion. There is opportunity here for a health clinic for the adult. Diet and health seem as significant as diet and disease. The importance of proper personal habits must be emphasized.

Venereal disease is an acute public health problem for which much is done in our dispensaries and out-patient departments. The control of this condition is dependent not only on active treatment but on prevention stimulated by health education.

Increasing emphasis on the need for more mental hygiene clinics is justified by the constantly increasing number of the mentally sick. The degenerative diseases bring within the scope of preventive medicine an increasing number of abnormal conditions constituting a serious public health problem. The modern method of living seems to play a significant part in the increasing number of deaths from heart disease, cancer and other degenerative diseases. To combat this condition we must emphasize the value of the periodic examination of the apparently healthy person for the purpose of early detection of symptoms. This plan emphasizes the importance of the employment of a technique similar to that now carried on in well established infant and preschool child clinics.

How Out-Patient Service Helps

We are all familiar with the plan of Dr. Franklin H. Martin, director general, American College of Surgeons, which he defines as the "health inventorium," the purpose of which is the development of adequate facilities as part of out-patient practice for the conduct of the periodic health examination. He stresses particularly the advisability of opening out-patient departments to the rank and file of the medical profession. I leave it to more mature minds in the field of hospital administration to determine the best plan to be adopted, but I earnestly endorse any plan that would be a material contribution to public health and a positive factor in the prolongation of life. I believe with Doctor Martin that the extension of the principles of personal health will demand the support and cooperation of an organized medical profession.

Economic organization in medicine is bound to come, since no medical program can be sound without the medical profession assuming proper leadership. We can see on the horizon the extension of health services in various forms as part of well planned and properly functioning hospitals. There is no greater appeal than better health, and organized communities will compel the development of satisfactory organizations that will have for their

objective the prolongation of life. It is impossible to conceive such development without the active participation of the hospital.

It is not suggested that hospitals should so revolutionize their procedures over night as to develop public health clinics that duplicate those already functioning to the best advantage. Instead, they should correlate their activities with such organizations. A meeting of minds may establish the wisdom of bringing these already existing clinics within the walls of the hospital. Local and geographic conditions may justify one plan or another. There may be reasons for making one hospital the health center of the community. This might be applicable to a county or small town organization, but might be illogical in a large city. Every proper measure for health conservation becomes the concern of the hospitals and must be seriously considered as part of their service. The medical profession's earnest attempt to promote health and to control disease will be reflected in the hospital's contribution in this field.

Uniform Hospital Report Saves Time for the Records Department

That hospitals should take a uniform stand in replying to legitimate and nonlegitimate inquiries from insurance companies and from others is the thesis of a paper compiled by Frances Benson for the use of the Bryn Mawr Hospital medical records training class, Bryn Mawr, Pa., and presented for discussion at the annual conference of the Association of Record Librarians of North America, which was held simultaneously with the Hospital Standardization Conference of the American College of Surgeons, October 14-18, 1929.

To eliminate undesirable practices on the part of those organized-for-gain institutions that attempt to use the hospital "to pull its chestnuts out of the fire," it is suggested that uniform action be taken by all hospitals, requiring permission of the patient, both ward and private, for the giving out of information and that the countless varieties of insurance outlines be disregarded. The use of a uniform hospital form, with a printed outline that covers only the points essential to the condition for which the patient entered the hospital, is suggested.

Bryn Mawr Hospital, according to Miss Benson, has instituted a "strictly hospital business" plan of giving out information concerning patients. No information concerning the physical condition, treatment or the history of any patient is given by any officer, employee or member of the medical staff, except such as is contained in the hospital record of the patient and then only with the written consent of the patient or the attending physician, or in obedience to a subpoena. This is held to apply to any and all patients in the hospital and to any and all insurance companies—life, accident or compensation carrier alike. It is, of course, not held to apply to the usual exchange of professional courtesy between doctors treating the patient, to welfare organizations, the Veterans' Bureau or similar associations working solely in the interest of the patient.

The official report on the patient covers his name, age and address; dates of admission and discharge; number of x-rays taken; special tests; operation; final diagnosis and condition on discharge.

This report "as per statement rendered or permission signed" has been, according to Miss Benson, the greatest saving of argument, time, labor and mistaken giving-out of private hospital business. It has also cut in half the demands for information from persons who may not be entitled to it.

How the Hospital Ranks When the Public Spends Its Money

Twice the amount of money was spent for movie tickets in 1929 than was spent for the operation of all the hospitals in the country. The amount spent for gasoline for automobiles in one week is more than the entire operating expense of all hospitals for one month. The money spent for cosmetics in six months would cover the cost of operation of all hospitals for a year. The wealth spent for cigars and cigarettes each year would pay the operating expenses of all hospitals for the same period and leave a comfortable surplus.

These statements are made in an editorial in the *Bulletin of the American Hospital Association* on a discussion of the cost of hospital care.

The editorial points out that, although the hospital is one of the most valuable agencies in the preservation of health in the community, the largest city in the country spends $150,000,000 a year in the treatment of disease and only $8,500,000 in its prevention. New York City appropriates but ninety-one cents a year for each citizen, Chicago spends $1.29 and Boston $1.53 for the preservation of health.

Hospital charges in well ordered hospitals, the editorial continues, are kept within a limit that is consistent with good care and high professional service and this despite the fact that these hospitals give an average of 20 per cent to the care of charity cases. That hospitals are being administered efficiently and economically is shown by the fact that there are fewer financial failures of hospitals than in any other line of business.

Meeting the X-Ray Requirements of the Community

That one well equipped, high voltage therapy machine should meet the requirements of a community of 100,000 population was the recommendation made by the committee on clinical and scientific equipment and work at the annual meeting of the American Hospital Association in Atlantic City.

X-ray equipment should be simple and stable, the committee report emphasized, and too much should not be expected of it in a diagnostic way. As a therapeutic measure it has many applications, but not so many as to warrant every hospital's being equipped for deep x-ray therapy, for example. The operation of such expensive equipment is a financial burden in that it is not only necessary to have an expensive equipment but also with the physician there must be associated a skilled physicist. Then, too, the demand for deep therapy is not frequent, according to the report.

A "Health Service Station" for 175,000 Persons

By THEO. H. SIERKS
Division of Health Education, Los Angeles County Health Department

[This article on out-patient service, because of its practical value, is appearing in the main section of the magazine instead of in the Out-Patient Service Department.—Editor.]

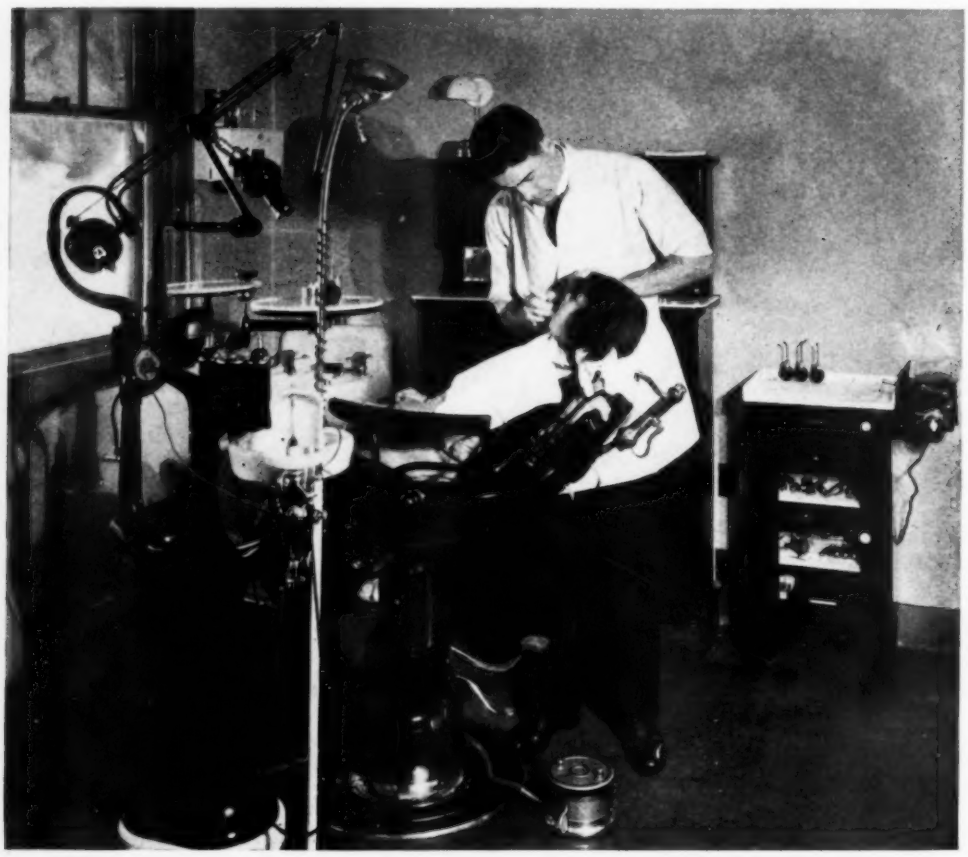
A FINE and completely equipped institution, the new East Side Health and Welfare Center, was recently erected by the Los Angeles County Health Department of California and serves as a "health service station" in the administration of preventive medicine to 175,000 persons residing in an unincorporated area of some forty square miles. The new building in Belvedere Gardens, seven miles east of Los Angeles, is the fifth of a chain of similar institutions extending throughout the 3,500 square miles of Los Angeles County for the decentralization of the county health department.

The health center building plan was conceived in 1925 by Dr. J. L. Pomeroy, Los Angeles County health officer, to administer economically and efficiently a public health program throughout a wide area of rural districts and thirty-four incorporated cities under contract with the health department for health services. The plan was adopted by the county board of supervisors as a public health policy when it was shown that a number of completely equipped and efficiently staffed institutions placed in strategic points in the county could serve the public better by eliminating long distance transportation to the health office for clinical, medical, health educational or emergency service. The buildings are financed by the board of supervisors from the annual budget allowed for outlay. The plan is to construct one each succeeding year until the necessary number have been completed. The latest health center cost $134,000. This included the construction, the purchase of the lot and the purchase and installation of equipment.

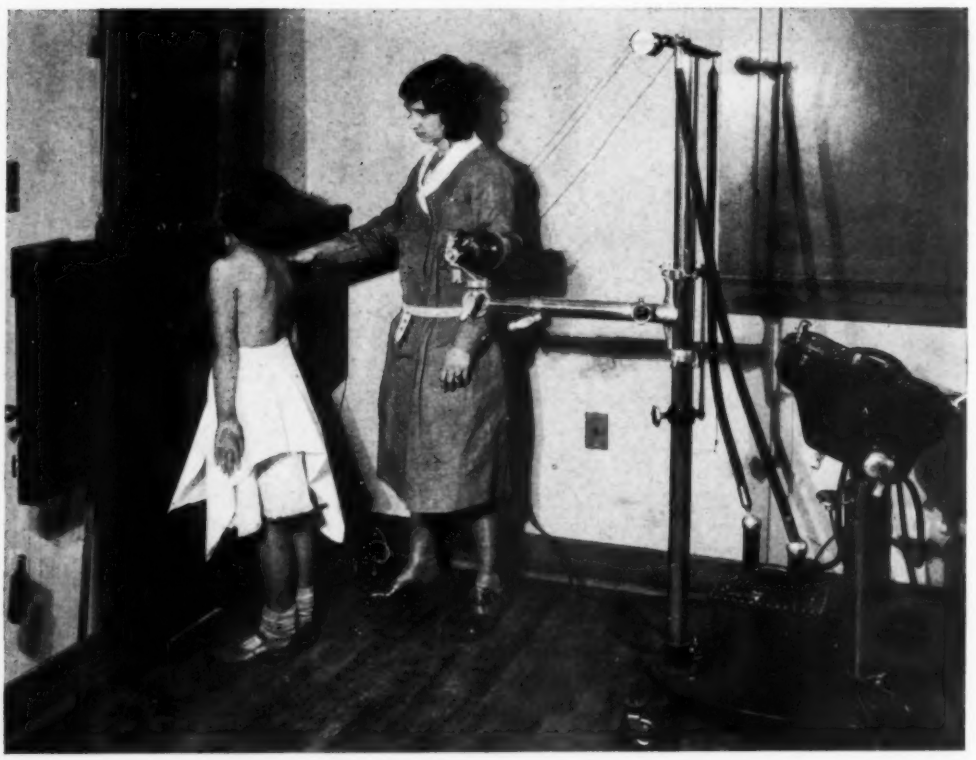
The architecture, of Spanish type, shows the influence of the historic province of Catalonia—a type that soon may be termed Southern Californian because of its increasing popularity and use in the Southwest. The building is two stories high, constructed of large, white cement blocks and roofed with California tile. It contains

22,150 square feet of floor space and stands on a corner lot, 250 by 300 feet. Tropical coconut trees, a low green hedge and a blue grass lawn form a garden in keeping with the style of the architecture.

The interior is treated according to the use that is made of the different sections. The lobby follows the Spanish style of architecture with hand-made tile floors, walls of texture plaster, and a ceiling of exposed redwood beams. The stair hallway and auditorium are also treated in this way. The wards, the operating rooms, the clinic offices and the kitchen are finished with white walls. Physiotherapy rooms and wash rooms are lined with white and green glazed tile.



The emergency operating room in the north wing of the building contains the most modern equipment for taking care of emergency industrial cases, home accidents and automobile casualties without the necessity of removing the patient to the General Hospital, the county hospital, on the north side of Los Angeles. It is equipped with a shadowless operating light and the latest in surgical instruments. A surgeons' scrub-up room adjacent to the emergency room provides the surgeon



Above is shown the type of dental chair used, which is constructed to fit the child, thus making dental work on youngsters easier. The modern x-ray equipment, used in the early and accurate detection of tuberculosis, is shown below.

with equipment to wash and take a shower before and after he performs an operation.

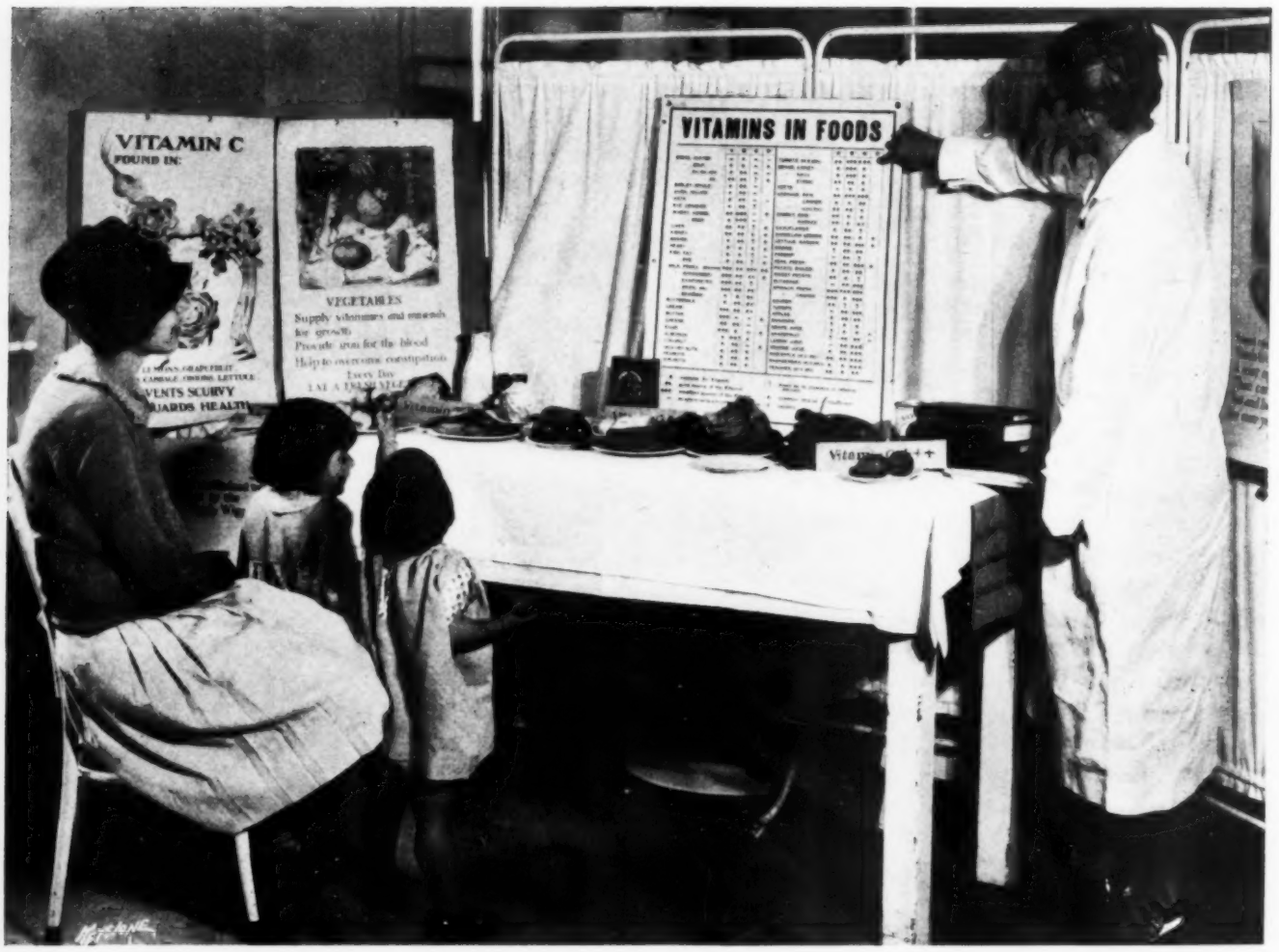
The surgical staff comprises emergency surgeons who are "on call" for the treatment of cases requiring immediate attention. The surgeon is authorized to collect his regular fee from the patient for his services unless the patient proves to be indigent. In the latter case, the surgeon donates his service. Clinical medical service is given by a group of physicians of the locality who volunteer their services on a regular schedule. Fees are determined by the bureau of medical social service which investigates the financial resources of the patient and charges him according to his ability to pay. The fees are pooled and are divided every six months among the physicians in proportion to the number of clinic hours each has served.

In the same wing with the operating room are several wards, which provide beds for temporary cases. The more serious or long enduring cases are transferred to the General Hospital. The operation preparatory room, the sterilizing room and the delivery room are adjacent to the emergency room. A diet kitchen has been provided for the preparation of meals for patients. Foods are cooked by electricity and are kept in refrigeration by the the same power. The venereal disease clinic office is situated between two other rooms, one specially fitted for women and the other for men. These clinic rooms are kept immaculately sanitary at all times, a condition that is greatly facilitated by modern plumbing equipment.

Complete x-ray equipment is available not only for the usual work in a hospital but to aid also in the making of accurate and early diagnoses of suspected cases of tuberculosis and diseased lung conditions. The x-ray work is supervised by an expert roentgenologist specially trained in the reading of negatives in terms of conditions of the lungs. X-ray stereoscopes aid the physician in his diagnosis and serve as an important factor in the education of the public as to results of tuberculosis.

The bureau of medical social service in the center wing is conveniently near the admitting office. The functions of this bureau are noteworthy because of the wide scope of its program. It not only determines the eligibility and social background of the patient for treatment, but it maintains a follow-up system to assure the necessary return of patients to clinics and tabulates the consequent results. It also strives to make certain that the physicians' recommendations are carried out in the home. The services offered by the health center are explained to new patients. The medical diagnosis of a patient is interpreted to him in terms of necessary treatment or physical care. Thus money is seldom wasted, because patients continue along the road to health by following up the initial examinations or treatment. The average person must have a "prompter" to urge him to continue treatment. This bureau also serves as a liaison officer between health center physicians and nurses and outside welfare agencies and institutions, assuring continuity of health supervision.

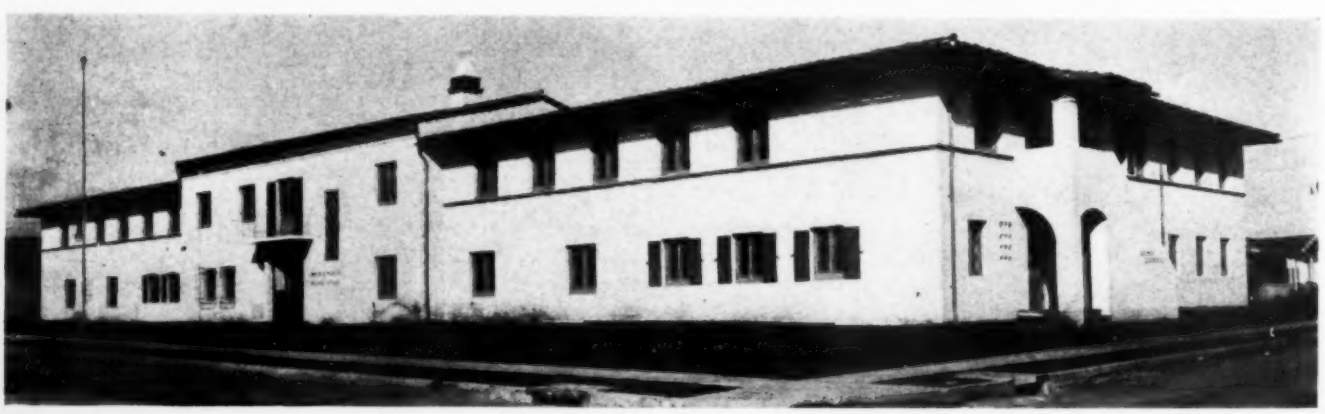
The bureau of child hygiene in the south wing of the building is a feature of the health center. Prenatal classes are held weekly for the women of the locality and free instruction is given by competent hygienists as to diet needs, physical care and the preparation of layettes. Mothers bring their infants and children to regular child hygiene conferences for advice in the proper method for keeping their babies well. This class is not for those children who need medical care. It is conducted for the express purpose of maintaining the good



Mothers and children are taught the value of vitamins in food and how to select adequate diets.

health of well youngsters and of keeping them on the road to development. During this meeting the children are weighed and measured to check their gain or loss or to detect any sudden physical disturbance. The children are permitted to play in one section of the room with specially constructed hygienic and health habit training toys, while the mothers are in conference with the child hygienist regarding the proper care of first teeth, the nutritional needs of children and the age when basic changes are necessary in their diets and safety first precautions necessary to guard against the multitude of accidents, both major and minor, that occur among infants and young children. Classes in the proper method of bathing babies are held periodically during which the science of bathing is made clear to young mothers.

The child hygiene section is completely equipped with individual dressing rooms in which the mothers may undress their children in preparation for weighing and medical inspection. It has also weighing and measuring devices, pediatrics

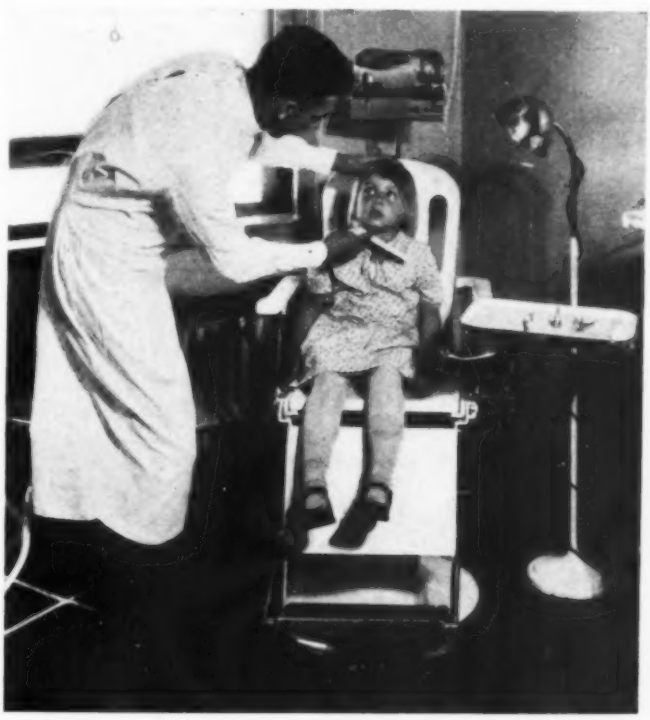


The East Side Health and Welfare Center, Los Angeles, is built of white concrete blocks and roofed with tile.

equipment and charts depicting the value of foods in terms of vitamins and calories.

These child hygiene conferences are exceptionally popular in the district. Mothers appreciate and understand that the "ounces of prevention" given out by the county health department may be the means of saving untold unhappiness and expense in doctors' bills. Governmental officials, also, are outspoken in their praise of the plan of an adequately equipped and staffed child hygiene program because of the economic benefits to the nation.

The Belvedere district laboratory on the first floor in the south wing is a branch of the central laboratory in the office of the county health department in Los Angeles. The district laboratory performs all the bacteriological and serological tests necessary for the control of communicable disease in the locality. Blood counts are computed and urinalyses made in conjunction with the clinical work of the local physicians.



In the nose and throat clinics children are examined for defects or diseases of the respiratory system.

Completely equipped dental clinic rooms and tuberculosis clinic rooms for examination and consultation are also in the south wing. These divisions are staffed with competent dentists and physicians. Darkened and soundproof rooms have been provided for the testing of eyes for strength and for their ability to distinguish different colors. The test of hearing is also made here.

The entire second floor is devoted to public health administration and clerical work. One section of the building houses the bureau of sanitation and inspection of the county health department, with separate offices for the different divisions of food inspection, dairy control, housing inspection, water inspection and sewage disposal. The department of public welfare has its offices in another section of the building. This department, although separate from the administration of the health department, works in conjunction with the bureau of medical social service in determining the eligibility of patients to treatment in the health center. The needs of the poor are cared for through this department. The distribution of food and clothing and the finding of work for the unemployed constitute the bulk of its functions.

The north section of the floor is devoted to the bureau of public health nursing and to the training of inexperienced nurses in the work of the health department. The section contains a library of books and literature pertaining to public health nursing, psychology and school and home conditions.

National authorities have been outspoken in their commendation of the health center building plan as an effective means of the administration of public health to rural sections and outlying cities. Dr. Ira V. Hiscock of the American Public Health Association speaks of the plan as the logical solution to the problems of rural health.

Dr. Kichiya Saigo, surgeon inspector general of Japan and president of the Japan Red Cross Hospital, Tokyo, recently made a tour of inspection of the new health center. After the functions of the institution were explained to him by Dr. A. S. Baker, director of the building, the surgeon-general declared that he would be an enthusiastic booster for the adoption of the plan in Japan where administration of clinical treatment and public health is one of the most urgent needs of millions of people who are unable to pay for medical services.

The plan supplies definite assistance to the medical profession by taking care of the indigent sick and by furnishing local physicians with necessary medical and surgical equipment and with laboratory services. It is obvious that persons unable to pay for their medical needs are a burden to practicing physicians who, although they have spent years in training and thousands of dollars for education, often render medical treatment with no certainty of remuneration for their services.

Then, too, the health center renders a great service to middle class families. These persons, termed the "backbone of the nation," may not be actually indigent but they cannot pay the

expense of sudden illness nor can they afford regular medical examination without bordering upon financial ruin and resultant poverty and dependence upon charitable institutions for support. In these cases, medical treatment, the cost to the patient of which is determined by the bureau of medical social service, may be the means of keeping a family on the road to financial progress with the result that, in due time, it may be able to afford proper medical care at the usual costs.

The slogan of the health center is, "Better health, better babies; better babies, better citizens; better citizens, a better nation."

Free and Pay Clinics and Their Place in the Medical Scheme

"Free clinics are a symptom of social pathology. They are an indication of economic maladjustment."

This statement is made by Dr. E. H. Lewinski Corwin, New York City, in a paper on "Free and Pay Clinics" that appears in the *American Medical Association Bulletin.*

"It is a peculiar irony of fate that the richest country should have the largest number of free clinic applicants per unit of population," he continues. The fact that everywhere in Europe, including Great Britain, there is some sort of social insurance against the contingency of illness is, of course, the main reason for the relative unimportance of the free clinic in these countries. From the point of view of services obtained by the patients, this is perhaps a distinction without much real difference. There is, however, a considerable difference between the two from the point of view of social and psychologic values.

Patients' and Physicians' Viewpoints

If the free clinic is a symptom of social pathology, is the pay clinic a symptom of robust social health, Doctor Corwin asks. From the point of view of the individual patient, is resort to a well organized and well equipped medical institution more desirable than resort to private practitioners, provided the cost to the patient is the same in both instances? Even if physicians are adequately paid for their time at these clinics, do such institutions promote professional efficiency and professional dignity, or do they tend to the enslavement of a socially essential and traditionally free profession?

Physicians have been peculiarly inconsistent with relation to this last question, he says. Physicians have accepted team work as a foundation of hospital organization. They have consented to recognize the records of their private patients as the property of the hospital. Surgeons have accepted the regulations imposed on hospital practice by the American College of Surgeons. The American Medical Association exercises control over hospital organization by certification for intern training. These examples show to what extent the medical profession has gone in relinquishing voluntarily its traditional freedom.

"Supervision of medical practice is, therefore, an established precept of American medicine," Doctor Corwin emphasizes. "The questions of team work and accountability are, therefore, not questions of principle, but of the degree of its applicability and practicability."

Is it practicable and desirable to extend the principle of staff organization and accountability to the care of the masses who now seek relief in the free and part-pay clinics throughout the country? Doctor Corwin inquires, and continues:

"Health is the greatest life asset of every person. A large proportion of those who flock to the free clinics go to them with undermined vitality and lowered productive efficiency. Some are threatened with complete disability or death. Eighty per cent of the clinic patients, as ascertained by a thorough inquiry into dispensary conditions in New York City, apply to the clinics in search of the advice of a specialist, or because of the need of special therapeutic equipment which they cannot afford to secure outside a clinic.

"Investigations of the economic status of dispensary patients, made in various parts of the country showed that on the whole about 2 per cent of the dispensary patients could be considered as being able to pay for medical services and as taking undue advantage of what the free clinic may have to offer. The highest estimate ever made was 10 per cent who were at least partially able to secure medical services outside free clinics."

Effect of Pay Clinics on Medical Profession

If the public, because of better provision than hitherto in the family budget or because of social insurance of one kind or another, should be able to resort to a greater extent to private practitioners than is now the case, would the problem of the sick from a social point of view be met satisfactorily? Doctor Corwin asks this question preliminary to a discussion of the effect of pay clinics on the medical profession. It may be safely assumed, he says, that pay clinics will never be resorted to by those able to afford private practice. Is it not likewise true that those who entertain these exaggerated fears do not clearly differentiate between state medicine, which at present exists only in one country, Russia, with supervised medicine, which provides for an organization of medical work similar to that found in hospitals, in the large industrial corporations and in well organized teaching clinics, whether pay, part-pay or free?

"There is no doubt," Doctor Corwin says, "that physicians have well founded grievances against both free and pay clinics. Only of late have conditions begun to change for the better with regard to the character of medical service in the out-patient departments, due to a closer cooperation between the out-patient department and the hospital, to better working conditions with respect to space and equipment and to the limitation of the number of patients on the basis of personnel. With the growing tendency on the part of hospital managers to raise admission fees to out-patient clinics, the increased income will make easier the payment of honorariums for clinic work."

Doctor Corwin also points out that the ethics of the medical profession proscribe advertisement, and that managers of medical institutions in their efforts to raise funds often give publicity to the work of the free or part-pay clinics, thus competing in an unintentionally unfair manner with private practitioners.

He concludes by saying that "although society has the right and duty to provide for itself health and medical services, it should not do this to the economic disadvantage of an indispensable and traditionally honored and honorable profession."

What 10,000 Patients Actually Paid in 100 Hospitals

A Study of 100 Bills in 100 Hospitals

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HOSPITAL charges have assumed a prominent position in discussions of the cost of medical care. Because of the scarcity of adequate data and because of the recent expression of opinions unsubstantiated by evidence, the following study of the first 100 full-pay patients' bills of 100 typical general hospitals has been made.

This survey shows that in the 100 hospitals studied, the average bill for the first 10,000 full-pay patients during the present fiscal year was $71.99, that the average duration of stay per patient in 52 of these hospitals was 11.04 days, that the average bed capacity of the hospitals was 186 and that their total bed capacity was 18,586.

These facts show clearly that the average bill per patient in the typical general hospital is a reasonable one. The average hospital bill is less than the amount that the average patient of moderate means spends for many of the luxuries that are common to-day, yet no criticism is raised as to their cost. This comparison is based on the extreme assumption that a patient will have a hospital experience once each year, but no study shows an average expectancy of hospital experience of less than once in three years.

Questionnaire Wins Hearty Response

Detailed data, exact copies of ledger accounts, were submitted by several of the hospital superintendents. The hearty response to the letter asking for information clearly illustrates the intense interest of all hospital administrators in this subject.

The letter that was sent as the inquiry for information is reproduced below:

"Dr. Will Mayo at the meeting of the American College of Surgeons said in effect that patients were paying too much for hospitalization. You may be sure his remarks caused a great deal of comment.

"I am asking 100 hospitals to furnish me with exact data regarding what patients actually do pay. Will you as one of these 100 representative hospitals send me the average hospital bill for the first one hundred full-pay patients in your hospital this year, irrespective of type of case but exclusive of any charges that did not go directly to the hospital, such as special nursing and physicians' fees?

"I shall greatly appreciate this information and I know that the data when compiled will be beneficial to you and to all hospital superintendents."

This study covers the bills of 10,000 patients, a sample large enough to be fairly representative of the patients in the general hospitals of this country.

Thirty-three States Included in Survey

The hospitals included in this survey have a geographical distribution covering thirty-three states. The number of hospitals in each state is as follows: Alabama, 1; Arkansas, 2; California, 4; Colorado, 2; Connecticut, 4; Delaware, 1; District of Columbia, 1; Florida, 2; Georgia, 2; Idaho, 1; Illinois, 4; Indiana, 4; Iowa, 2; Kansas, 1; Kentucky, 3; Maine, 2; Massachusetts, 6; Michigan, 6; Minnesota, 5; Missouri, 4; Nebraska, 3; New Jersey, 5; New York, 9; North Carolina, 1; North Dakota, 1; Ohio, 7; Oklahoma, 1; Oregon, 1; Pennsylvania, 8; Tennessee, 1; Texas, 3; Utah, 2; and Wisconsin, 1.

It will be noted that all fees that do not go to the hospitals but which in some cases may be collected by the hospitals for professional workers, have been excluded. The cases have been taken irrespective of their type or of their duration of stay in the institution. Naturally the fiscal years of the hospitals do not all begin at the same time, and the data do not cover identical periods of the year. But this fact does not affect the study in any way.

To present as clear a picture as possible of typi-

cal general hospitals, certain institutions had to be selected. Hospitals in large metropolitan centers having a population of more than 1,000,000 were not asked to send data; neither were hospitals in rural districts or in sparsely settled communities. All of the 100 hospitals studied are in towns of at least 25,000 population.

Because of their low costs, made possible by the elimination of administrative salaries for work performed by Sisters, Catholic hospitals were not asked to participate in the study. Special institutions, such as those for the treatment of tuberculosis, nervous and mental diseases, chronic invalids and other nongeneral hospitals were excluded because they are not typical institutions. Moreover, hospitals publicly subsidized, either in whole or in part, were not asked for information.

TABLE I—BED CAPACITIES AND AVERAGE BILLS OF 100 TYPICAL GENERAL HOSPITALS

Bed Capacity	*Average Bill*	*Bed Capacity*	*Average Bill*
216	$103.18	319	$ 66.99
250	59.89	150	77.08
150	71.08	250	83.91
150	45.84	160	48.47
270	44.40	130	80.25
350	84.68	275	111.84
115	50.58	115	99.33
400	98.39	369	63.78
200	61.37	225	79.89
100	52.96	117	72.17
118	65.69	70	89.53
265	83.55	250	145.21
100	86.62	250	75.84
125	55.54	282	57.79
320	69.22	100	30.91
76	67.15	250	52.60
130	99.08	162	136.60
189	48.06	115	77.28
200	49.22	101	37.33
220	88.80	110	70.55
150	81.43	360	84.52
300	84.67	140	65.43
100	45.12	250	61.61
375	76.85	350	72.19
160	118.32	150	53.42
53	57.36	85	68 55
175	75.04	200	71.62
125	72.28	115	64.85
160	66.77	150	91.52
130	44.30	148	93.94
200	56.42	140	118.74
172	69.75	375	94.22
300	109.33	210	67.15
350	41.15	128	64.33
152	73.90	125	44.74
70	53.69	200	73.20
232	79.67	100	51.00
100	96.81	117	48.91
110	101.25	619	71.40
225	67.24	100	91.36
125	54.99	250	75.82
175	69.13	80	110.69
235	67.07	109	54.28
110	65.44	100	48.05
135	85.43	167	55.23
175	65.84	200	78.83
60	56.74	150	47.85
155	52.35	175	97.55
175	68.32	195	58.70
300	54.27	—	—
150	65.17	186 (Average)	$71.99

Thus it is clear that the data (see Table I) present an accurate picture of patients' bills in 100 typical general hospitals.

Analysis of the figures shows that of the 100 hospitals, 14 had an average bill for 100 full-pay patients of less than $50. Only 9 of the 100 hospitals had an average bill for 100 full-pay patients of more than $100. It is therefore apparent that 91 per cent of the average bills were $100 or less, and that 77 hospitals had an average bill for 100 full-pay patients between $50 and $100, a remarkably close concentration about the average for the entire group of $71.99.

Similarly, only 11, or 21 per cent of 52 hospitals reporting this item, had an average duration of stay of more than 12 days for 100 full-pay patients. Of the 52 hospitals, 17, or 32 per cent, had an average duration of stay of less than 10 days for 100 full-pay patients. Hospital administrators who for some time have contended that the hospital bill has not really increased because of the shorter duration of stay of patients find their contention sustained by the fact that 41 of these 52 hospitals, or 79 per cent, had an average duration of stay of less than 12 days. The concentration of hospitals (24, or 47 per cent) near the average duration of stay, 11.04 days, is noticeable; the comparatively large number with a stay of less than 10 days is still more noticeable.

Bed Capacities Between One and Three Hundred

Most of the hospitals had a bed capacity between 100 and 300. Only four institutions had a bed capacity of less than 100; only 10 had a capacity of more than 300.

One of the most interesting studies made by an individual hospital on this question shows the percentage of patients who paid bills in each of 16 classes. The results are shown in Table II, and the same material is pictured graphically in the accompanying chart. It is interesting to note that the average bill for 100 patients in this hospital was $69.13, and yet 69 per cent of the patients paid less than this sum. Eighty-five per cent of the 100 patients paid less than $100. Ninety-one per cent paid less than $125 and 96 per cent paid less than $200.

Four well known hospital administrators sent exact copies of their ledger statements for the first 100 full-pay patients treated. From these four detailed statements, it had been possible to compile comparative data of real value. Although the departmental classifications of service are not identical in any of the statements they are nearly enough alike to enable accurate comparisons to be made.

Our analysis of these accounts shows the comparative data for each of these four institutions, for all departmental services. Table III shows the comparative amounts paid; Table IV, the comparative percentages of total amounts; Table V, the comparative numbers of patients served by each department; and Table VI, the comparative average amounts per patient.

Interesting indeed is this comparison of departmental service to patients. Reference to the tables indicates that hospital care (also called room, board or board and treatment) is responsible for the largest share of the bill, roughly 70 per cent. Use of the operating room or delivery room is the next most important item, and is responsible for from 5 per cent to 10 per cent of the total bill.

Close correlation between these percentages and similar data for Cleveland hospitals, members of the Cleveland Community Fund, evidences their reliability. William I. Lacy, Welfare Federation of Cleveland, wrote[1]: "Aside from the charge for board of special nurses, these special charges constituted only 16.3 per cent of the total bill." In the same study, Mr. Lacy found that 12 hospitals had an average duration of stay for paying patients of 9.66 days. He reported as follows a large percentage of bills that were less than $50: "The astonishing fact is thus brought out that 56 per cent of all bills rendered to any one family were for less than $50."

It is believed that the data presented herewith reflect accurately present day charges in typical general hospitals. The average duration of stay per patient checks with the average secured in many studies of many groups of hospitals. A study made in 1926 showed that the average duration of stay in 1926 was 12 days.[1] A study of 676 general hospitals,[2] all members of the American Hospital Association, showed that during 1928 the average duration of stay of patients was 12.56 days. The same study revealed that the average

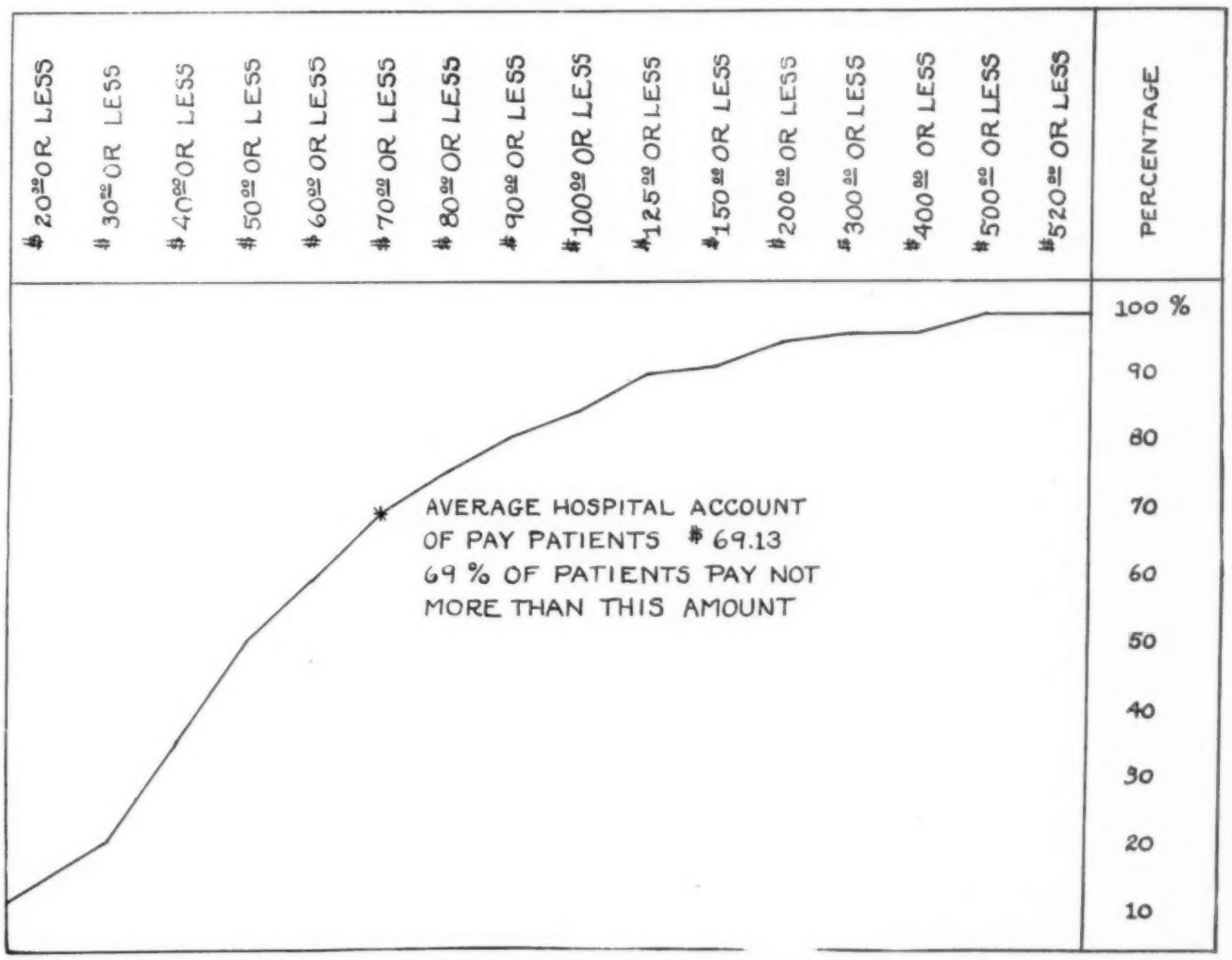


Chart showing amount of hospital charges to pay patients in an Ohio hospital.

[1]William I. Lacy, Justifying Hospital Finance, Welfare Federation of Cleveland, THE MODERN HOSPITAL, September, 1928, p. 65.

[1]John A. McNamara, Correct Those Wrong Ideas, THE MODERN HOSPITAL, June, 1928, p. 75.

[2]J. S. Parker, Institutional Members of the American Hospital Association—A Statistical Study, The Bulletin of the American Hospital Association, April, 1929, p. 217.

TABLE II—FIRST 100 PAY ACCOUNTS OF HOSPITAL NO. 42, 1929, ARRANGED IN 16 CLASSES ACCORDING TO AMOUNT, AND WITH PERCENTAGES ACCUMULATED

Percentage in Each Class		*Cumulative Percentage at Each Class Division*	
$ 20.00 or below	13	Below $ 20.00	13
20.00 to $ 30.00	9	Below 30.00	22
30.01 to 40.00	14	Below 40.00	36
40.01 to 50.00	16	Below 50.00	52
50.01 to 60.00	7	Below 60.00	59
60.01 to 70.00	10	Below 70.00	69
70.01 to 80.00	7	Below 80.00	76
80.01 to 90.00	5	Below 90.00	81
90.01 to 100.00	4	Below 100.00	85
100.01 to 125.00	6	Below 125.00	91
125.01 to 150.00	1	Below 150.00	92
150.01 to 200.00	4	Below 200.00	96
200.01 to 300.00	2	Below 300.00	98
300.01 to 400.00	None	Below 400.00	98
400.01 to 500.00	1	Below 500.00	99
500.01 to 520.00	1	Below 520.00	100

receipt per patient for these 676 hospitals was $61.83. The correlation between this average and the average bill shown here is noteworthy.

Most iluminating are the comments of the hospital superintendents who supplied the data for this study. Some of these comments are in explanation of the figures submitted; others give the writers' opinions concerning statements that have been made regarding hospital charges. In all cases they reflect an evident spirit of fairness and a sincere desire to make public all the evidence, in order that impartial judgment may be made.

The superintendent of one hospital writes:

"The appended list of charges was indeed a revelation to me though I had already in a general way known that the charges at our hospital were very reasonable. Out of the 100 cases here presented, there are only 17 bills of over $100 and only 2 of over $250 each."

The care with which the figures were compiled is evident from the following comment:

"We find that the average hospital bill for the first 100 full-pay patients in our hospital this year is $71.08. To make sure that this group was not exceptional, we figured the next 100 also, and found the average to be $72.72.

"You might be interested to know that of the first 100, two bills were above $300 (for 74 and 95 days); six were between $200 and $300 and ranged from 32 days to 56 days; fifteen were between $100 and $200 and the balance were below $100. Our rates are lower than most hospitals charge for similar accommodations, but the length of stay is probably longer since, when we are not too crowded, we allow patients to remain during convalescence and we also receive some chronic cases."

It should be remembered that the data studied are for full-pay patients only; in other words, this survey does not consider free and part-pay work

TABLE III—COMPARATIVE AMOUNTS PAID

Departmental Service	*Hospital No. 1*	*Hospital No. 21*	*Hospital No. 31*	*Hospital No. 43*
Hospital Care (Room, Board, Board and Treatment)	$6,883.74	$5,581.15	$4,093.50	$4,835.00
Board of Special Nurses (Nurses' Board)	853.50	472.50	281.00	201.50
Surgical Dressings (Dressings)	378.30	143.64	.....	.....
Operating or Delivery Room (and Anesthetics)	1,046.15	450.00	557.00	439.00
Medicine (Drugs, Special Drugs, Sale of Supplies)	472.45	404.16	55.70	28.75
Laboratory	434.00	423.00	198.00	294.50
X-ray	160.00	485.00	275.00	908.00
Telephone	79.41	.....	11.19	.....
Electrocardiograph	10.00	.....	.....	.....
Therapy	.....	14.00	.....	.....
Child Delivery (Delivery Room)	.....	170.00	65.00	.....
Ambulance	.....	.....	106.00	.....
Totals	$10,317.55	$8,143.45	$5,642.39	$6,706.75

performed by the institutions. An example of the amount of service of this type given by one of the hospitals is apparent from the following information:

"We are enclosing a list of our first 188 patients admitted this year, as follows: full-pay patients, 100; part-pay patients, 64; charity, 24. We are listing only the full-pay patients on the enclosed schedule."

Another hospital took not only the average of the first 100 full-pay patients, but also an average of the first 100 patients who occupied single rooms, including the best rooms in the hospital. This study gives the following information:

"The first 100 paying patients admitted to this hospital this year (1929) paid an average hospital bill of $61.37. I went a little further to find out just how well paid we were, and took the first 100 patients occupying single rooms, including the best rooms we have in our institution. The average bill for these 100 patients is $86.96. These bills include everything except special nursing and physicians' fees—every charge that the hospital makes, including laboratory, x-ray, operating service, medicine.

"I should be much interested to know the average fee paid the physicians by these patients but I have no way of finding out."

An idea of the types of cases included in the survey may be gained from the following explanation:

"At your request I have made a list of the first 100 pay patients who entered our hospital this year. Some were medical, some surgical, some obstetrical and some were children. Some occupied private rooms, some semiprivate and some wards. Some had considerable x-ray work done; others, considerable laboratory work. These 100 admissions will give a correct general average of the cost of hospitalization. The total amount of the hospital charges for these 100 patients is $6,569.35, or a general average of $65.69 each."

An unusual report from a hospital of 130 beds has excluded from the study all tonsil cases and newborn babies. Even under these unfavorable conditions, the average bill per patient is only $99.08, and the average duration of stay per patient is 15 days.

Another administrator gives the figures for the entire year, and also classifies his bed capacity by the rates for rooms, as follows:

"Here is what I found we had:

Patients	8,360
Patient days	57,560
Average days' stay	6.76
Average bill	$48.06
Average charge per day to our patients	7.10

"We had the following bed charges in our hospital:

1 bed	$10.00
16 beds	8.00
33 beds	7.00
36 beds	6.00
29 beds	5.50
14 beds	5.00
15 beds	4.50
20 beds	3.50
25 beds	1.00
189 beds	

"This makes an average for the bed charge in the hospital of $5.17."

In addition to the figures for private rooms, those for the maternity department and for the wards for a full year were sent by a superintendent, as follows:

"In the wards, the average stay in the hospital

TABLE IV—COMPARATIVE PERCENTAGES OF TOTAL AMOUNTS

Departmental Service	*Hospital No. 1*	*Hospital No. 21*	*Hospital No. 31*	*Hospital No. 43*
Hospital Care (Room, Board, Board and Treatment)	66.72%	68.54%	72.55%	72.10%
Board of Special Nurses (Nurses' Board)	8.27	5.80	4.98	3.00
Surgical Dressings (Dressings)	3.67	1.76	....	....
Operating or Delivery Room (and Anesthetics)	10.14	5.53	9.88	6.54
Medicine (Drugs, Special Drugs, Sale of Supplies)	4.58	4.96	0.98	0.43
Laboratory	4.20	5.19	3.51	4.39
X-ray	1.56	5.96	4.87	13.54
Telephone	0.77	....	0.20	....
Electrocardiograph	0.09	....	....	....
Therapy	....	0.17	....	....
Child Delivery (Delivery Room)	....	2.09	1.15	....
Ambulance	....	....	1.88	....
Totals	100.00%	100.00%	100.00%	100.00%

was 9.5 days; average cost per day, $4.54; lowest expense to an individual patient for hospitalization, $8.50; highest expense to an individual patient for hospitalization, $124.20 (24 days); half of the patients paid less than $30; the average paid by patients, $44.64.

"In the maternity department, the average stay in the hospital was 12.5 days; average cost per day, $6.72; lowest expense to an individual patient, $46.20; highest expense to an individual patient, $114.93; average cost, including charges for baby, $84.

"In the private rooms, the average stay in the hospital was 12¾ days; average cost per day, $7.21; lowest expense to an individual patient, $5; highest expense to an individual patient, $220.05 (27 days); average cost, $88.80 (this is the cost that was used for this institution in the general summary of 100 hospitals' averages of bills for 100 patients).

"The distribution of cost is shown in the following compilation."

Private Room

Room, board and nursing	71.5%
O. R. and anesthetics	13.7
Laboratory	4.4
X-ray	4.5
Ambulance	.6
Gas	1.4
Special nurses	2.1
Special medicines	1.8
	100.0

Maternity Department

Room, board and nursing	83.5%
O. R. and anesthetics	6.0
Laboratory	1.2
X-ray	1.5
Gas	1.2
Dressings and miscellaneous	5.9
Special medicines	.7
	100.0

Wards

Room, board and nursing	63.7%
O. R. and anesthetics	17.3
Laboratory	3.1
X-ray	2.9
Ambulance	1.3
Gas	2.0
Special medicines	1.3
Miscellaneous	1.4
Dressings	7.0
	100.0

One hospital executive sent a list of 100 patients who occupied private rooms, with the following comment:

"You will notice that we have in this list 49 surgical patients, 39 medical patients, 12 obstetrical patients.

"These 100 patients were in the hospital 1,159 days, and the average bill per patient was $75.04. I think that you will agree with me that this hospital is not making money on its private patients in order to make up the deficit on semiprivate patients.

"I anticipate that you will find that hospitals are not money making institutions, but are only trying to serve the communities where they are located."

One of the significant factors in the cost of medical care is emphasized by one administrator in the following comment:

"Over 50 per cent of the private patients can afford and insist on having special nurses both during the day and during the night at an expense of $17 per day.

"An analysis of the first 100 full-pay cases in the hospital in January, 1929, shows the following: 38 private patients remained 319 days and paid $3,665.70; 19 semiprivate patients remained 171 days and paid $1,130.40; 43 ward patients remained 389 days and paid $1,881.55 (an average length of stay of 8.79 days for all three cases, and an average hospital bill for 100 patients of $66.77).

"Our per capita cost averages $7 per day, so that we have a loss on the semiprivate patients as well as on ward pay patients.

"In addition to these pay patients, we average 12 free patients per day for whom no agency pays."

What One Superintendent Stated

Another administrator comments as follows on the data he submitted in this study:

"For a private room, $4 is the minimum charge and $8 is the maximum.

"The minimum amount paid by any patient was $8, which consisted of $4 for room and $4 for x-ray services.

"The maximum amount paid by any patient was $303.05, which was composed of $240.00 for 30 days' occupancy by a medical case, with $63.05 for extras, consisting of x-ray, laboratory and physiotherapy. There are, of course, many variations. For instance, I find one medical case that paid $4 for one day's stay and had $25 worth of x-ray work done. Likewise, some of these are tonsil cases, which normally have a charge of $4 for one day's board and room and $7 to $15 for operating room and anesthetics."

TABLE V—COMPARATIVE NUMBERS OF PATIENTS SERVED

Departmental Service	*Hospital No. 1*	*Hospital No. 21*	*Hospital No. 31*	*Hospital No. 43*
Hospital Care (Room, Board, Board and Treatment)	100	100	100	100
Board of Special Nurses (Nurses' Board)	25	27	24	20
Surgical Dressings (Dressings)	66	47	..	..
Operating or Delivery Room (and Anesthetics)	69	43	47	39
Medicine (Drugs, Special Drugs, Sale of Supplies)	96	89	9	5
Laboratory	89	57	66	52
X-ray	8	20	15	63
Telephone	30	..	4	..
Electrocardiograph	1	..	..	..
Therapy	..	4	..	..
Child Delivery (Delivery Room)	..	12	13	..
Ambulance	..	..	20	..
Total Patients	100	100	100	100

Still another aspect of hospital service is stressed in the following statement:

"Only a hospital that contributes to teaching and scientific work is doing its full duty. If endowment funds could be made available for laboratory and research work, the deficit in most hospitals would be reduced to a negligible amount with consequent reduction in patients' bills.

"The cost of special equipment and high salaries necessary in order to secure competent personnel represents an enormous outlay of money and unless a hospital is heavily endowed, the patient must bear his share of the burden in return for services rendered."

Detailed explanation of another hospital's charges for 100 patients is made as follows:

"We made a study of the accounts of the first 100 full-pay patients admitted to this institution in 1929. Charges of $6,913.83 were billed to these 100 patients. Of this amount, $5,139.43 has been paid, leaving a balance unpaid of $1,774.40. The average patient was therefore charged $69.13, of which $51.39 has been paid, leaving a balance unpaid of $17.74. Inasmuch as various studies have shown that the average individual receives hospitalization about once during a ten-year period, this means that the annual cost of hospitalization per individual is approximately $7, and this for pay patients.

"Of the first 171 admissions, only 100 were full-pay patients. Thirty-seven were newborn infants for whom no charge is made. Three were employees who received free service; six were state industrial cases, the cost of whose care was met by the state industrial commission (Ohio hospital). Sixteen free cases were admitted to the general hospital. The cost of their service was $4,789.30 or $299.33 each. Nine crippled children were admitted, the cost of whose service was $4,492, or $499.11 each. It is interesting to compare the average cost per free case with the average charge of the pay case, which is $69.13. The average crippled child stays 120 days in the hospital, which explains the high cost

TABLE VI—COMPARATIVE AMOUNTS PER PATIENT

Departmental Service	*Hospital No. 1*	*Hospital No. 21*	*Hospital No. 31*	*Hospital No. 43*
Hospital Care (Room, Board, Board and Treatment)	$68.84	$55.81	$40.93	$48.35
Board of Special Nurses (Nurses' Board)	34.14	17.50	11.71	18.32
Surgical Dressings (Dressings)	5.73	3.05	.....	.....
Operating or Delivery Room (and Anesthetics)	15.16	10.46	11.64	11.25
Medicine (Drugs, Special Drugs, Sale of Supplies)	4.92	4.54	6.19	5.75
Laboratory	4.88	7.42	3.00	5.66
X-ray	20.00	24.25	18.33	14.41
Telephone	2.65	.....	2.79	.....
Electrocardiograph	10.00	.....	.....	.....
Therapy	.....	3.50	.....	.....
Child Delivery (Delivery Room)	.....	14.16	5.00	.....
Ambulance	.....	.....	5.30	.....
Average, All Services	$103.17	$81.43	$56.42	$67.07

per case. Of 14 cases remaining at the hospital over 3 weeks, 5 were free cases and 9 were pay cases.

"There were 4 accounts of pay patients over $200. These 4 accounts amounted to $1,453.30, of which only $289.35 has been paid, leaving a balance of $1,163.95.

"Of the first 100 pay cases admitted, 77 accounts have been paid in full, 17 have been partly paid, and there are 6 accounts on which no payments have been made to date. There will probably be a net loss of about 6 per cent or approximately $415 on these cases."

Hospital Privacy Is Costly

Still another diagnosis of the situation is contained in the following statement:

"It is perhaps true that if general hospitals were not expected to provide comfortable and well furnished private rooms, it would be possible for them to operate at a lower current cost, and consequently to reduce their charges. But comfort and privacy in the hospital are popular demands, and so long as the general hospital offers its guests the alternative of accommodations at moderate cost, I believe it should accord the same guest the choice of complete privacy and expensive individual nursing if he wishes it, even though the cost may be a temporary burden to him.

"It is only in rare cases that the patient cannot be told in advance what the approximate cost of his hospital stay will be. An intelligent admitting officer with a good general knowledge of the community his hospital serves is a large factor in the control of overcharge complaint."

Mounting hospital costs are chargeable to the doctor, the patient and the hospital, in the opinion of another administrator who states:

"If our critics mean that the patients are not getting value received, I must emphatically disagree with the statement. If they mean that because of mounting costs the hospitals have to charge higher rates for the services rendered, in order to pay their bills, I should be more inclined to agree. It is my opinion that these increasing costs are chargeable to the doctor, to the patient and to the hospital.

"I could comment rather extensively on all three points but since your letter asked only for the data enclosed, I shall refrain from further comment on the matter."

An institution that reports an average hospital bill of $80.25 for the first 100 full-pay patients explains the amount thus: "One account continued for seven weeks, the bill amounting to $659.55, which is an unusual amount for us to collect on one patient and makes our average considerably higher."

One list of 100 bills is not typical of the bills for the entire year, according to the superintendent who submitted it and who makes the following assertion:

"A smaller percentage of ward patients are included in this list than would be included in the general census of the hospital. In fact, for last year only 38 per cent of all patients were in private rooms; while in this list 55 per cent of the patients were in private rooms. In this list only 45 per cent of the patients were in wards; against 62 per cent last year. This discrepancy increases the amount paid per patient over the average cost per patient.

"In order to eliminate any undue difference that might be made by excessively large x-ray bills, I had the x-ray charges listed separately although they are included in the total paid, but, as you will note, this would not make any material difference. (The total x-ray charge for 100 patients, of whom 18 were billed for x-ray work, was $385. For 100 patients the average was $3.85 per patient; for the 18 patients who received x-ray service, $21.39 per patient.) Only one-half of the x-ray charges go to the hospital; the other half, to the doctor in charge."

A Low Average Bill

Again the point of free and part-pay service is emphasized by a hospital superintendent whose average bill for the first 100 patients is well below the average of the complete group of 100 hospitals, since his average is $57.79. He writes: "Of course you understand that if we had included the proper proportion of free and part-pay patients, the average would be considerably reduced, for during the year 1928 we cared for 23 per cent absolutely free, and 9 per cent who paid less than our ward rate."

Even in cases where the average hospital bill is greater than $100, the rate per day is usually less than the cost per day. This condition is illustrated by the following remark:

"This city offers some unusual circumstances for hospitals as the average per population is unusually high and there is keen competition.

"We have only 13 of our 175 beds with rates per day equal to the per capita cost which was $5.06 in 1928. Of the highest priced rooms with baths (rate $6.50) the average hospital bill for 32 patients was $145.45, which included every hospital charge. The next highest room rate is $5.50, and the average bill paid by 68 patients was $127.75. The average between these, therefore, is $136.60."

The influence of free and part-pay work upon the duration of stay of patients is noted by an administrator who writes as follows:

"You may be interested in just a little more detail. We find that the 100 cases consisted of 61 private room patients at an average of $85.29 and 31 ward patients at an average of $51.69.

"The average length of stay of these patients was 10.42 days: 652 room days, average 10.7; 392 ward days, average 10.1. This, however, should not be confused with the average stay for this hospital, which is raised considerable (to about 16 days) by part-pay and free patients."

In addition to the average bill, one institution reports the three highest bills as follows: "$232.25 for 44 days; $267.00 for 35 days; $215.00 for 31 days." In the same hospital the three lowest bills were as follows: "$7.75 for one day; $10.50 for one day; $12.25 for one day."

Distribution of the rates in a hospital of 115 beds which had an average bill for the first 100 patients of $64.85, is as follows: "$3.50, 11 per cent; $3.75, 4 per cent; $4.00, 27 per cent; $4.50, 9 per cent; $5.50, 34 per cent; $7.00, 15 per cent."

Further substantiation of the claim that hospital patients often deliberately choose the more expensive services is found in the following comment:

"I have never been convinced that hospital charges are too high, but I have been convinced that patients too often choose a type of service beyond their ability to pay. This, I think, is the fundamental cause of dissatisfaction rather than the lack of the proper range of provisions for all sizes of pocketbooks."

One hospital's average of $5.10 per day is in line with its average of $5.52 for an entire year. The superintendent writes:

"A complete analysis of the 13,869 patients treated at this hospital last year shows that the average cost to all private patients was $5.52 per day and the cost to all ward patients was $2.39. The average stay of all cases was 14 days."

A hospital of 175 beds with an average bill per patient of $75.04 and an average stay of 11.59 days supplies detailed data for 100 patients, dividing them into surgical, medical and obstetrical patients as shown in the following table:

	Number of Patients	*Total Days*	*Average Stay*	*Amount Paid*	*Average Hospital Bill per Patient*
Surgical ...	49	573	11.75	$4,017.46	$81.78
Medical	39	472	12.00	2,674.38	68.57
Obstetrical ..	12	114	9.50	812.20	67.68
Total (or Average)	100	1,159	11.59	$7,504.04	$75.04

Another hospital which reports an average bill per patient of $48.05 and an average stay of 8.57 days analyzes its figures for the first 100 patients according to the following departmental classification:

Room and board, nursing care, services of an intern	$3,796.09
Charges for clinical laboratory	206.00
Charges for x-ray	196.00
Charges for drugs	111.30
Charges for use of surgeries including ether and novocaine anesthetics	331.00
Charges for ethylene, oxygen and nitrous oxide anesthetics	142.50
Charges for casts	22.50
Total	$4,805.39

The superintendent of this hospital states: "Thus it will be seen that the total charge per patient day for the first 100 patients is $5.60 including all the items specified above; and that the cost per patient day for room and board, nursing care, services of an intern and a minimum of dressings and medicines is $4.43 per patient day.

"We have no wards in this hospital. Therefore, the figures quoted are for services in private or semiprivate rooms (two-bed rooms). This hospital has no endowment and in fact no income whatsoever except that received from the patients. It might also be interesting to note that in the year 1928 this hospital rendered $17,574.65 worth of voluntary free service aside from debts which we have not and never will be able to collect. This latter item might well be called our involuntary free service."

Another interesting analysis was made by the superintendent of a 265-bed hospital with an average bill per patient of $83.55 and an average stay of 12.42 days. He summarizes his findings in the table above.

No. of Patients	*Total Days*	*Total Payments*	*Average per Day*	*Average per Patient*
9	96	$ 419.10	$4.36	$ 46.56
5	52	262.35	5.04	52.67
17	306	1,520.25	4.96	89.42
4	29	219.18	7.55	54.79
27	332	2,283.90	6.87	84.58
2	28	200.50	7.16	100.25
34	393	3,393.55	8.63	99.81
2	6	57.00	9.50	28.50
100	1242	$8,355.83	$6.72	$ 83.55

A similar analysis, on the basis of the total charge per patient day, has been made by the superintendent of a 125-bed hospital, which reports an average bill per patient of $44.74 and an average stay of 8.15 days. This division of

charges is shown in the accompanying table below.

The administrator who made this distribution of charges comments as follows on recent adverse criticisms:

"The hospital of to-day seems almost a victim of circumstances in its endeavor to meet the advance in prices without increasing the cost of hospital service. Considering this fact, there is need of a growth of public sentiment in favor of the hospital rather than a lack of confidence built upon a wrong impression.

AVERAGE CHARGES TO PATIENT PER DAY

Item	*Dollar Charge*	*Percentage*
Room	$3.60	65.50
Surgery	.84	15.25
X-ray	.31	5.75
Laboratory	.30	5.50
Medicine	.38	7.00
Dressings	.05	1.00
Total	$5.48	100.00

"If a surgery is the workshop of a surgeon, if he performs a part of the institution's service, and if for such service he states a charge is unfair to a patient, he is the logical one to provide information necessary to verify his statement."

The superintendent of a teaching hospital connected with a university medical college comments as follows:

"In my opinion the average hospital cost is too low when you consider the great number of expensive necessities hospitals are forced to maintain for the service of their patients.

"When medical expenses are discussed by the average medical gathering the hospital generally receives the criticism for the high cost of medical care. At the same time we all know that the hospital bill is generally the minor item in the total, and that the charge that makes sickness expensive is very much more likely to be the professional fee that the patient pays to the surgeon in surgical cases."

Hospital charges are not excessive. Dollar for dollar they are justified by the importance of the service rendered for them—the salvaging of priceless human life. Cost for cost they are justified by the skilled service of technical and professional hospital workers. Compare hospital charges with charges for similar service in any field. The result will be favorable to hospital charges. On the average, they are not a burden. They do not rest as heavily on the average "man in the street" as movie payments, gasoline bills and the amounts cheerfully paid for many other luxuries. The factual evidence here submitted proves hospital charges fair and reasonable.

The Doctor's Part in Clinic Development

"The doctors, not the accessories, make the clinic."

These words aptly sum up the points presented by Dr. Morris A. Fishbein, editor, *Journal of the American Medical Association*, in a paper, "The Doctor and the Clinic," given at the American Hospital Association meeting in Atlantic City, June 17-21, 1929.

Following a brief but thoughtful dissertation on the development of clinics, Doctor Fishbein summarized his discussion thus: "In the well controlled clinic of the present or the future, the good of the patient must be the first consideration. The good of the patient is dependent on a forward looking, ambitious, scientific medical profession. Any scheme that destroys the pride of the physician in his work and makes of him a robot rather than an artist in his profession is bad for the care of the sick. The maintenance of the general practitioner is important for the 90 per cent of ordinary illnesses which are best and most economically treated by the general practitioner. In the development of the clinic the rights and permanence of the general practitioner must be safeguarded. Under such circumstances he becomes invaluable to the development of the clinic.

"The principle of individual responsibility for the patient by some physician is fundamental. It should be recognized that the best scientific care for serious illness is beyond the means of the average man and that he must either be satisfied with less, as he has been in the past, or philanthropy, the state or insurance must furnish the difference. Clinics for the middle class, caring for all types of disease, cannot be conducted as self-supporting institutions as has already been shown by such institutions as the Cornell Clinic. The advancement of the science of medicine is such that physicians are compelled to call more and more on the collaborating professions. Nevertheless, it must be constantly recognized that the care of the sick is the doctors' problem. The doctors, not the accessories, make the clinic."

British Motorists to Raise Hospital Fund

A hospital fund to be raised by British motorists and allocated to hospitals in collaboration with the British Hospitals' Association is shortly to be forthcoming, according to the *Prince Alfred Hospital Gazette*. The announcement was made by Sir Arthur Stanley, chairman of the Royal Automobile Club and also chairman of the Joint Council of the British Red Cross and order of St. John and treasurer of St. Thomas' Hospital.

The fund is to be used to assist the hospital outside large centers. According to Sir Arthur, road accidents have placed a heavy burden on voluntary hospitals in all parts of the country, many of them being in a position of desperate financial difficulty. Motoring, he pointed out, has added £220,000 a year to the expenses of hospitals outside the London area. The accident cases due to motoring cost these places a total of £250,000, and only £30,000 is recovered from the persons treated.

Credit for instituting a fund of this nature should be given to the Auto-Cycle Union, which arranged with its affiliated clubs that a percentage of all receipts at sports meetings where gate money was charged should be given to hospitals, Sir Arthur said.

Organizing an Emergency Service That Actually "Serves"*

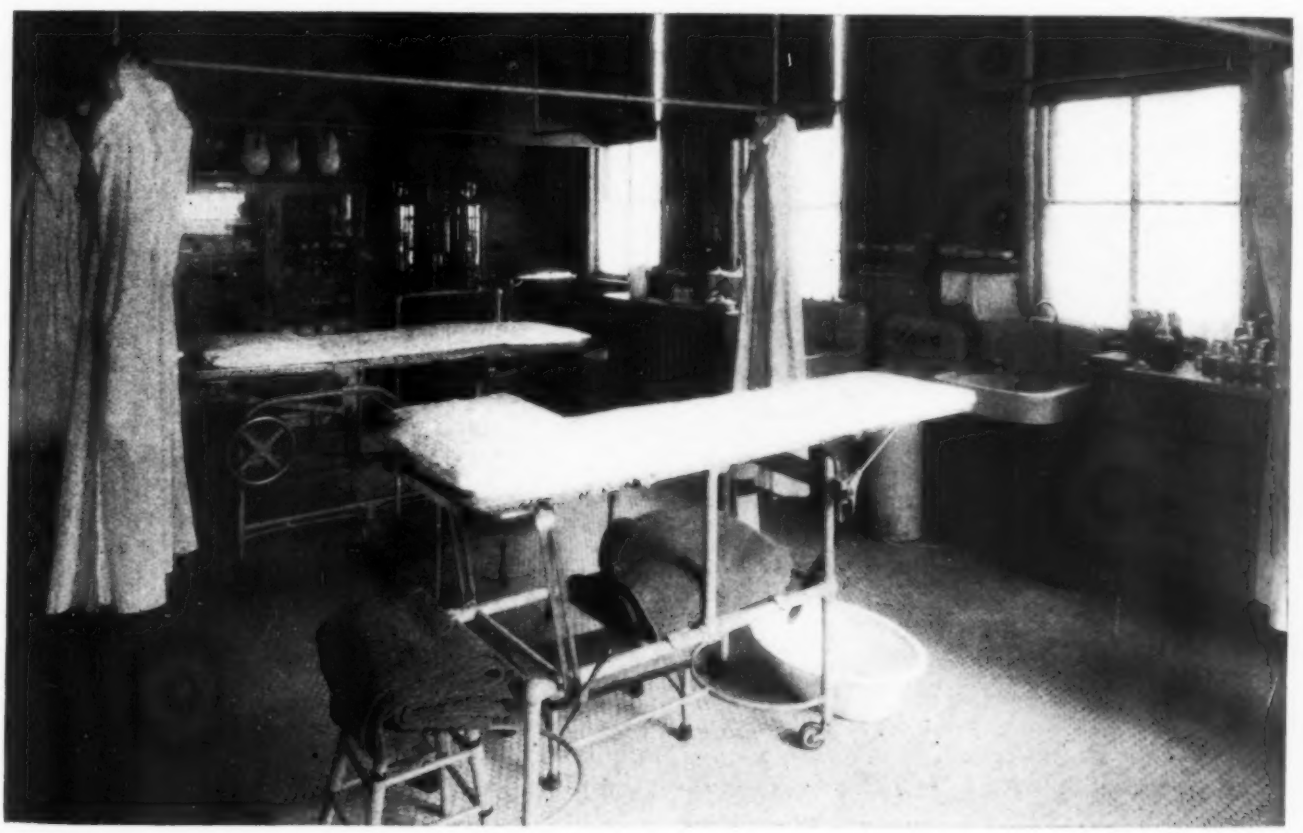
By CHARLES F. NEERGAARD
New York City

LAST winter I experienced, I may say enjoyed, a four months' hospital visit as a patient. The basis of this paper is inside information gained at that time. But may I emphasize that none of the incidents here related happened in the hospital in which I was a guest. Members of the house and attending staff would drop into my room when the day was done, and talk things over. Some of their tales seemed to suggest the weaknesses that creep in when hospital management loses its sensitiveness, when it becomes too highly centralized and autocratic.

It is said to be a tradition in the navy that when the admiral summons his officers to the flagship for a council of war, he calls first upon the junior of those present to express his opinion on the question at issue. In the hospital field as well, the freshness of viewpoint the junior may bring is worth hearing.

The custom is spreading of holding regular meetings of the administrative staff to discover means of lubricating squeaks in the operating machinery and to find ways of improving service. The superintendent, like the admiral, may be omnipotent but he is not omniscient, and what I am about to relate has to do with a superintendent whose habit of keeping his mental door closed to suggestions from his staff definitely impaired his hospital's usefulness. A senior resident in a large city hospital, one of those thoughtful men who frankly challenge abstract theories when they fail to measure up in practice, recently told me some of his experiences, things that should properly have reached the ears of the superin-

*Read at the Hospital Standardization Conference of the American College of Surgeons, Chicago, October 14-17, 1929.



The emergency room, Williamsport Hospital, Williamsport, Pa.

tendent. When I asked him why he had not reported them he replied, "I tried it once, but my suggestions were obviously not welcome."

As many of his criticisms affect the most significant phase of hospital management, the welfare of the patient, they seem worth retelling. The hospital in which he interned was prominent because of its many innovations in design and method. In this hospital there was a system of centralized control which seemed to be based on a general distrust of the personnel. For instance, the procedure involved in making a simple laboratory test at night would seem almost grotesque did it not have its serious aspects.

The Complications of a Laboratory Test

The intern called by signal, goes to the telephone and dials the information clerk who tells him that he is to call the fifth floor. He dials the fifth floor nurses' station and if he is fortunate he eventually gets an answer and is advised that there is an emergency blood count in room No. 54. He goes down to the information desk on the first floor where, for the sake of control, all keys are kept after the technicians have gone for the day. Here he is presented with the key to the laboratory. He proceeds to the ninth floor and unlocks the laboratory office. A key hanging on a nail behind the door gives him access to the main laboratory. Here he gets the materials and equipment for taking the blood specimen.

After collecting these materials he relocks the second door, hangs the key on its nail, relocks the first door and proceeds to the patient's room on the fifth floor. He is admitted and takes the specimen. He retraces his steps to the ninth floor and goes through the same procedure with the keys as he did the first time. After getting into the main laboratory he has to find a third key, carefully hidden under a certain pad in a certain drawer, with which he unlocks the microscope. Then he makes the blood count, cleans his apparatus, locks up his microscope, puts the key back under the pad, locks the inner laboratory and hangs the key back of the door. At this minute the telephone rings. To get to it he has to go into a third laboratory. A report on the blood count is wanted at once, and he tells them he will be down immediately. He then has to return and relock all the dors, wait for the elevator, go to the fifth floor and make a written report on the chart for the physician. He is now through. He returns the original key to the information clerk.

All this routine takes at least thirty and probably forty minutes. How much time and effort would be saved if, in the absence of a convenient interns' laboratory, the hospital management felt it could trust its interns with a key! Would it not be cheaper in the end to run the risk of losing a few instruments and supplies than to waste the intern's time, keep the surgeon waiting half an hour for a simple routine report and perhaps delay an emergency operation?

This hospital also carried its red tape into the emergency department. While it ran no ambulance, it had an active accident and emergency service. The authorities, however, seemed to regard the department merely as a place for minor injuries and routine dressings. "While on emergency duty, I had a number of trying experiences," the resident said. "These demonstrated a sad lack of familiarity on the part of the management both with what can and does happen on this vital frontier of hospital service and with the dangers of control which degenerates into red tape. When seconds count, equipment and drugs should be instantly available.

"The emergency room was lacking in much essential apparatus and many drugs and supplies were stored under remote control and could be had only on requisition, all of which meant delay. The room itself and all supply cabinets in it were always locked, the keys being kept by the charge nurse of the admitting department. If she left the floor she sometimes unlocked the room but rarely the cabinets. One inconsistency always amused me. In spite of the locked cabinets, many valuable instruments were kept on the tables wrapped in sterile packages all ready for the predatory passer-by to slip into his pocket. I was tempted to recommend such chains as second-rate hotels use in public washrooms to anchor their combs and brushes.

Two Tragic Incidents

"Two tragic incidents in this department I shall never forget. A child fell on a picket fence three blocks from the hospital. She was carried in by the mother and upon examination was found to have a laceration of the external and internal jugular vein on the right side. She had, of course, lost a great deal of blood on the way and was unconscious. The hemorrhage was stopped by pressure but the problem of supplying the deficient circulation could have been no more insoluble had the patient been in her own home. There was no saline in the emergency room, no citrated blood or any of the various preparations for supplying exsanguinated patients. The accident happened at about 8:30 o'clock at night. It was useless for me to try to procure the saline. It would have involved locating the night supervisor, who in turn would have had to go to the operating

room on the top floor, unlock the doors, get the saline and the apparatus for injecting it and return to the first floor. All of this would have have required twenty minutes' time, and we could not wait. A fellow intern volunteered as donor, but before the necessary equipment for transfusion could be assembled, the child had died.

"The second episode: A man was carried into the emergency room. He appeared to be an acute cardiac type. An examination of his pulse, blood pressure, respiration, pupil and heart showed him to be a true angina case. Nytroglycerine and morphine were indicated. Neither was available. To get them it was necessary to write a prescription which the nurse took to the office of the supervisor half a block away where there was a drug cabinet—locked! The supervisor was not in her office and had to be located somewhere in the building. Before the prescription was returned the patient had had a second attack of angina and the drugs were no longer necessary. Of course, no one may say that the lack of these things cost these two patients their lives, but on the other hand, no one can argue to the contrary.

Where the Hospital Failed

"In this hospital, it was not so much the lack of things that was at fault; it was the lack of their availability. It took too long to get them. The control system seemed based on the idea that it was more important to prevent the theft of supplies than it was to ensure prompt care in emergencies. It seems reasonable to feel that any intern whom the hospital intrusts with the lives of patients, might be trusted with a key to the laboratory and to the hospital's accident room."

The resident related incidents in other hospitals which indicated the desirability of giving more thought not only to the equipment of the emergency department but to its organization, so that adequate personnel will be available. These incidents concerned belligerent patients, alcoholic or maniacal, threatening injury to the doctor who tried to restrain them, and terrified and screaming children whom it was almost impossible to examine without more assistance.

After discussing these experiences we speculated on what should be provided to ensure a sound degree of preparedness in the emergency department. Three national organizations in the medical and hospital field were appealed to for suggestions. The information they furnished, however, was far from comprehensive, which seems to indicate that a helpful contribution might be made to hospital literature through the preparation of an adequate check list to serve as a guide in setting up this service.

Therefore, out of the fortunate and unfortunate experiences of the thoughtful resident, and with the collaboration of several surgeons and two hospital directors, such a check list has been prepared. It is intended to meet the requirements of an active emergency service in a large general hospital. Obviously, the smaller institutions will not be able to afford the extensive duplication of equipment indicated. They can, however, select the most important items and, to avoid delays, post in the emergency room a list of the apparatus the hospital has and where it may be found.

The following suggestions are made as to organization. For each emergency call two nurses, or a nurse and an orderly, should report to the department to assist the physician. If not needed they can be dismissed and, as a further safeguard, a signal system can be provided to summon help. That all equipment and supplies may be found quickly, a complete list should be posted in a conspicuous place, indicating the cabinet and shelf where each item is stored. The location of apparatus which might be needed but which is kept outside the department should be stated, as should also the place where the keys are kept. Any appliances with which the average physician may not be familiar should have clear instructions for their use attached. A list of donors, properly typed, if possible from among the personnel of the hospital should be available for blood transfusions.

A detailed list of furniture and equipment, apparatus and instruments, drugs, solutions and supplies for an active emergency service in a large city hospital is given here.

Furnishings

Examination table of a type that the head and foot may be elevated and lowered, with curtain screen.

Rubber pad and pillow.

Straps for unruly patients; stirrups for gynecology, etc.

Pad.

Rubber sheeting 36 by 72 inches.

Waste receptacle, step pedal top.

Portable floor lamp, gooseneck; ceiling light, adjustable.

Ice box.

Bed.

Bedside table; ice water bottle on stand; cup container with cups.

Instrument sterilizer, basin sterilizer, water tank.

Forceps, 12 inch, for removing materials and antiseptic.

Container and warmer for 2 blankets.

Gowns—3 sterile.
Scrub-up sink.
Scrubbing brushes.
Sterile towel container; paper towels in case.
Green soap container, foot control; solution basin in stand.
Portable table, extension top.
2 glass top tables.
Wheel chair.
Stand for solutions.
Stretcher, large size, with restraint straps attached.
2 kidney basins.
2 chairs.
2 white enamel basins in separate stand.
1 footstool.
1 revolving stool.
4 hot water bottles; 2 ice caps.
Irrigating standard, adjustable height.

CABINET 1—DRESSINGS

6 doz. compresses, 4 by 4 gauze.
4 doz. compresses, 1 by 1 gauze.
6 doz. compresses, 6 by 3 gauze.
1 doz. eye pads.
1 doz. perineal pads with straps.
1 doz. vaginal pads with straps.
½ doz. head rolls, used also as leg rolls.
4 sheets for draping; 3 sterile sheets; 1 doz. sheets for bed, table, etc.
½ doz. pillow cases.
1 doz. muslin bandages, 4-inch.
1 doz. muslin bandages, 6-inch.
1 doz. plaster of Paris bandages, 2-inch.
2 doz. plaster of Paris bandages, 4-inch.
1 doz. plaster of Paris bandages, 6-inch.
2 doz. sterile towels.
4 doz. roller bandages, 1-inch.
2 doz. roller bandages, 2-inch.
2 doz. roller bandages, 4-inch.
1 doz. roller bandages, 6-inch.
2 doz. flannel bandages, 4-inch.
2 doz. sheet wadding, 4-inch.
1 doz. silence cloths, 4-inch.
1 sq. yd. Mexican felt.
½ doz. A. B. D. pads, 6 by 6 inches.
2 suspensories, homemade, medium size.
1 doz. iodoform gauze, ¼-inch.
1 doz. iodoform gauze, 1-inch.
1 doz. iodoform gauze, 2-inch (prepared in dark bottle).
1 doz. plain gauze packing, ¼-inch.
1 doz. plain gauze packing, 1-inch.
1 doz. plain vaginal and uterine packing.
1 large box sterile vaseline gauze, 3-inch (50 to 75 strips).
1 large roll adhesive, emergency strapping, etc.
1 roll moleskin adhesive.
1 jar cotton balls.
1 doz. basswood splints.
2 feather pillows for pillow splinting.
2 Thomas' hip splints for lower extremities.
Thomas' arm splints.
Cast cutting knife and saw.

CABINET 2

Clavicular cross.
Banjo splint.
Head mirror.
Magnifying glass.
2 copper applicators.
2 Esmarch's tourniquets.
3 aseptic syringes, assorted.
12 pairs rubber gloves.
1 Kaufmann gravity intravenous set.
1 intracardial needle.
1 phlebotomy intravenous needle.
1 aspirating needle.
1 bone curet.
2 extra sponge forceps.
2 boxes hypo. needles, assorted.
1 bedpan.
1 male urinal.
1 pitcher.
1 irrigating can and 2 nozzles.
1 Labot local anesthesia set.
1 Luer's syringe, 50 cc; 20 cc; 10 cc; 5 cc; 2 cc.
1 razor and extra blades.
6 ft. rubber tubing, ¼-inch.
2 medicine glasses, 1 oz.
1 enamel graduate.
2 doz. safety pins.
4 doz. medicine droppers.
2 cartons absorbent cotton.
1 tongue depressor.
1 mouth gag.
1 wooden applicator.
1 box microscopic slides.
1 doz. culture tubes.
1 pulmotor, CO_2 and O_2 tanks.
1 set of rubber catheters.
1 catheter stylet.
2 stomach tubes, medium and small.
1 alcohol lamp.
1 male metal catheter, 14 F.
2 thermometers, oral.
2 thermometers, rectal.
1 rectal tube and funnel, and small rectal catheter.
1 soft rubber ulcer syringe.
1 Snellen's test tube.
1 tape measure.
1 doz. finger cots.
1 percussion hammer.

1 stethoscope.
1 small magnet.
1 rubber ear syringe.
½ doz. test tubes for specimens.
Enam. jars to contain sterile dressings, avoiding having to undo packages in emergencies.
Adhesive pack.
Drinking tube.

CABINET 3—DRUGS

25 tabs. grs. ½ morphine sulphate (or solution).
25 tabs. morphine grs. 6 atropine 150 grs.
25 tabs. grs. 1/30 strychnine sulphate.
25 tabs. 100 nitroglycerine.
25 tabs. gr. ¼ codeine solution.
25 ampuls caffeine sodium benzoate grs. 5.
25 ¾ capsules of ephedrine sulph.
12 ampuls 1 cc. adrenalin cl. 1-1000.
12 tabs. ¼ gr. cocaine hydrochloride.
12 digitalein tablets.
12 ampuls camphorated oil grs. 5.
12 ampuls 2 cc. novocaine.
6 ampuls quinine urea hydrochloride grs. 5.
2 ethyl cl. tubes.
4 oz. paraldehyde.
12 ampuls glucose, 50 per cent.
1 bottle insulin U 20.
12 ampuls A. T. S. U. 1,500.
2 yellow oxide of mercury tubes.
1 tube atropine ointment, 1 per cent.
1 tube cocaine ointment, 1 per cent.
4 oz. butyn.
12 tablets gr. 1/10 apo. morphine.
6 oz. ipecac (syrup).
6 amyl nitrite pearls.
2 oz. benzyl benzoate.
6 ampuls pituitary 1 cc.
6 oz. aromatic spirits of ammonia.
1 pint hydrogen peroxide.
2 ampuls 20 cc. mgs. so. 10 per cent.
1 alum stick.
1 silver nitrate stick.
1 oz. concentrated nitric acid.
2,000 cc. Ringer's solution (made up fresh every 3 days).
Sod. bromide zt. gr. xv, hysteria, etc.
Castor oil.
Oil of cloves.
Carron oil.
Calamine lotion with phenol, 1 per cent.
Glycerine and phenol, 5 per cent.
Bicarbonate, pulv.
Collodion.
Chloroform.
Green soap sol.
Talcum pulv. for gloves.
Aspirin, gr. 5, 1 doz. tablets.
¼ pint whisky.

Poison Antidotes

Acacia.
Lime water.
Vinegar.
Tartaric acid, 50 per cent.
Dil. hydrochloric acid.
Iron hydroxide.
Magnesium oxide.
Starch.
Magnesium sulphate saturated solution.
Milk magnesia.

Antiseptics

Pot. permanganate.
Tinct. iodine.
Tannic acid 4 per cent (fresh every 3 days).
Balsam of Peru and castor oil 50-50.
Alcohol, 95 per cent.
Zinc sulphite, 1 per cent.
Mercurochrome tablets.
Bichloride tablets.
Ether.
Benzine.
Disinfectant solution, 95 per cent and 1 per cent.
Argyrol, 10 per cent.
Argyrol, 20 per cent.
Bichloromine oil.
Dakin's solution (fresh daily).
Sterile water (fresh daily).

Ointments

Boracic acid, 10 per cent.
Unguentin.
Scarlet red U. S. P.
Blue ointment, 50 per cent.
Ammoniated mercury, 10 per cent.
Salicylic ointment, 5 per cent.
Carbolated vaseline, 1 per cent.
Vaseline, plain.
Sterile mineral oil.
Ky Jelly.
Ichthyol ointment.

Powders

Alum.
Aristol.
Zinc stearate.
Boracic acid.
Iodoform.
Sulphur.

Wet Dressings Solutions

Magnesium sulphate.
Ochsner's solution.
Alum acetate.
Lead acetate.
Distilled water.

CABINET 4—INSTRUMENTS

Bandage scissors.
4 pairs of suture scissors, 1 large and 1 small.
4 pairs thumb forceps, 1 large and 1 small.
1 doz. assorted needles (skin, curved, round, etc).
2 needle holders.
1 doz. small hemostats.
2 Kocher's clamps.
2 Kelly's clamps, curved.
100 assorted Michel clips and remover.
1 Noyes forceps, 1 large and 1 small.
2 probes, large and small.
2 groove directors, large and small.
2 Allis clamps.
1 Bard Parker scalpel with 12 blades, assorted.
6 tubes of catgut plain, No. 1.
6 tubes of catgut plain, No. 2.
6 tubes catgut chromic, No. 1.
6 tubes catgut chromic, No. 2.
6 tubes horse hair.
6 cards black silk, assorted.
6 tubes silkworm gut, assorted.
1 pair splinter forceps.
1 oral screw.
1 vaginal speculum, Graves' medium.
1 rectal speculum, Brinkerhoff's medium.
1 pillar retractor.
1 eye speculum.
1 curved tongue depressor.
1 pair uterine dressing forceps.
1 uterine tenaculum.
1 nest trocars.
1 bone rongeurs, 6-inch.
1 set laryngeal mirrors.
1 blood pressure mercury, wall type.
2 lumbar puncture needles (Quincke).
1 electric diagnostic set, containing: laryngeal, nasal, otological and ophthomological attachments.
Tracheotomy set.

List of Donors IV-II (in hospital).

Why the Public Health Nurse and the Hospital Should Cooperate

How the hospital may carry on a program of community education through the public health nurse was forcibly brought out by Mrs. Elizabeth Soule, director, department of nursing, University of Washington, Seattle, in an address before the Western Hospital Association, Portland, Ore.

The public health nurse cannot carry on a comprehensive program in a community without the help of the hospital, Mrs. Soule said. She must have a place where the work can be done. In small communities the public nurse must work with the hospital just as she must work with all the doctors who are practicing in the community.

The hospital should have some plan for making its staff acquainted with the public health representatives in the community. The nurse in charge of a ward in a hospital should know the public services available for caring for a patient in the home after he is able to leave the hospital. In some localities hospitals are sponsoring public health lectures—lectures for the community. Those lectures would be of even more value if the public health nurse were consulted as to the questions of health in the community. A nurse going into the homes knows the problems peculiar to the community.

There is no person in the community who is a better advertiser than the public health nurse, if she knows what the hospital is doing, Mrs. Soule emphasized. Because she comes close to the people in their homes, she has an opportunity to interpret the hospital's work effectively.

The nursing school should, first of all, Mrs. Soule said, try to give the nurse the right attitude toward cooperative work with the community, the attitude that the hospital is one part of the public health program and that to get the best results it must be a part that works closely with welfare agencies in the community; the school must provide a better basic training and a knowledge of the public health agencies and their functions and what they are supposed to do in the community; it must sponsor an acquaintance on the part of the nurse with the persons in charge of the community agencies. The communities that are supporting hospitals and public health agencies are asking that the two cooperate. They realize that the public health nurse and the hospital together must contribute to the program of community welfare.

Medical Schools Are Fewer but Enrollments Are Larger

Although there has been a reduction of six medical schools in the United States during the past two years on the accredited list, which now numbers seventy-four recognized by the American Medical Association, enrollment of medical students has increased from 18,840 in 1926 to 20,545 in 1928, an increase of 1,705 students, according to a statement issued by the Bureau of Education, Department of the Interior. Graduates from medical schools in the same period increased from 3,962 to 4,262. There are in the United States 149,521 physicians. This is a greater percentage (126.59 per 100,000 population) than that of any other country.

A prospective addition to the accredited list is the new school of medicine of Duke University, to be opened in 1930.

Greatly enlarged plants at Columbia University and the University of Colorado medical schools have been completed within the past two years, as have also new buildings at Howard University, and the state universities of Iowa, Kansas and Tennessee and at Johns Hopkins. Thus the capacity of medical schools is continually being increased, which is making it possible to enroll increasing numbers of medical students.

The District of Columbia, comprising the city of Washington, leads in the supply of physicians in each state in proportion to each 10,000 people, as well as the number for each 100 square miles.

Corner Bunks or Island Beds? A Plea for Comfort and Efficiency

By S. S. GOLDWATER, M.D.
New York City

AMONG the hundreds of suggestive items contained in the report of the American Hospital Association's committee on buildings for 1929 are many that the authors of the report concede to be debatable. Other items deal with the perfectly obvious, and were included in order to make the report as complete as possible and to increase its value to the relatively inexperienced.

A subdivision of the report headed "Bed Service" offers the following hints: "Accessibility of bed from both sides: facilitates clinical examinations, nurses' assistance at examinations and dressings, bed making, nursing care, stretcher manipulation and transfer of patient." Nothing seems more obvious than that the bed of a hospital patient should be accessible from both sides. Nevertheless, it is unfortunately true that some of the most conspicuous hospitals of the country have recently been built or planned without regard to the primary hospital need of bed accessibility.

What the Nurse Says

Nurses, it appears, sometimes have a livelier appreciation than some hospital superintendents and hospital architects of what contributes convenience and comfort in clinical planning. Not long ago a wide-awake nurse was called to a private household to care for a young lad suffering from pneumonia. The nurse was conducted by the patient's mother to a room where she found the patient lying on a bed placed in a corner, with its head and one of its sides in direct contact with the wall. The patient's mother then withdrew. Returning twenty minutes later she found that the room had been completely transformed. The bed now occupied a crosswise position parallel with the outer wall, and to facilitate this arrangement several pieces of furniture had been moved. The nurse smilingly explained: "Now," she said, "we have a real hospital and can look after our patient properly. A corner bunk is an obstruction to bed nursing. With the bed in the open I can get at my patient from any angle; so can the doctor. Facing the doctor across the bed I can watch him closely and can often anticipate his wants, and I can assist him without getting in his way. I can feed my patient from whichever side of the bed the patient finds most comfortable, and I can change the bed linen and make up the bed without pushing the bed about and constantly disturbing the patient." All of which constitutes, I believe, an unanswerable indictment of the corner bunk or the bed placed lengthwise against the wall, as far as hospital service is concerned.

Consider Patient's View

One other item in the report on ward planning is relevant and significant. In the section entitled "Miscellaneous Comfort Factors," the report refers to the patient's "view from bed," and proceeds to enumerate the various possible arrangements: "Fixed position of bed, view toward blank wall; fixed position, view toward window (consider glare); optional position (view toward or away from window) if bed is parallel to outer wall." Is a choice difficult?

I am penning this brief communication in the hope that it will reach the eyes of those who, whether in their search for economy, for novelty or for some other real or imaginary advantage, or perhaps in simple thoughtlessness, are sponsoring or accepting unprotestingly the corner bunk as a proper hospital arrangement. Nothing but the free-standing bed, in my opinion, is admissible in hospital practice. If a reason can be adduced to the contrary, I should like to hear it.

Ask any expert in physical diagnosis whether a patient can be properly examined from only one side of the bed. How can a patient lying in a corner bunk be freely and thoroughly inspected, palpated, percussed and explored, except by first pulling the bed out of its normal position into the middle of the room, or by compelling the patient to perform gymnastic feats which are beyond his strength and ability? Will a physician take the trouble to drag the bed away from the wall whenever he wishes to make an examination? Can he expect the nurse to do it? Will the moving of the bed, whether by doctor or nurse, contribute to the patient's comfort?

To clinch the argument, let me make this suggestion: Go to any hospital where some of the beds are free-standing and where others, quartered in rooms or wards of a different pattern, lie along the wall with only one side of the bed accessible. Compare the clinical charts in the two series of cases and see whether you can detect any difference in the quantity and quality of the clinical notes. I have done this, and I have found exactly what one would expect to find, namely, that the patients who are accessible from all sides are more carefully examined than those who can be readily approached from one side only. In the case of the more accessible beds I found that the clinical notes were generally richer and more voluminous. The clinical records of the hospital where this observation was made testify eloquently to the superiority, for hospital purposes, of the free-standing bed.

In the interest of sound hospital planning I should like to propose the immediate organization of a league for the elimination of the corner bunk from American hospitals. When organized, the league should give no quarter to an arrangement that is inimical to comfort and to clinical efficiency.

And Again—Who Should Write the Hospital's Appeal Letters?

If all hospitals that are planning a drive for funds could have their "soliciting" letters written by so delightful a letter writer as A. A. Milne, the eminent English author, the effort that usually goes into such drives would doubtless be far more fruitful.

Mr. Milne has written an appeal letter for the Hampstead General Hospital, London, and has sent it out in facsimile handwriting on his own personal stationery. According to the *Survey*, which publishes the letter, "it furnishes a complete answer to the old question as to whether appeals should be written by financial secretaries or writers."

The letter is quoted here in full:

"I expect you know the story of the man who took his friend to the bar, and said, with a large and generous air, 'Now then, what would you like?' To which the friend replied that he thought he would like a pint of champagne. 'Oh!' said the host, 'Well, try thinking of something near threepence.'

"What the Hampstead General Hospital would like is £10,000, and it would be a simplification of its finances if your were charming enough to send them a cheque for that amount in the enclosed envelope; but if you would prefer to think of something nearer threepence I shall understand. Not near enough to give you the bother of buying stamps or postal orders; something in guineas, I suggest, which will give you no more trouble than the opening of your cheque book. But just as you like, so long as you help us.

"The Hampstead General and North-West London Hospital, to give it its full title, which need not all be put on the cheque, has a debt of £10,000, and needs another £5,000 a year income in order to pay its way. I could give you further figures of its income and expenditure, and the number of patients attended, and the operations performed, but these might not interest you. More interesting, perhaps, is this; that where its outpatients' department now stands in Bayham Street, Camden Town, there stood once the house where Charles Dickens lived as a boy when his father first came to London. His father you remember, had that habit, which was to descend to Mr. Micawber, of living in the hope that something would turn up. It is thus that hospitals have to live; they just struggle on from year to year, hoping that men will always be generous, women always merciful. So, year after year, hospital after hospital makes its appeal to you; and, no doubt, day after day at this season you see such a letter, say to yourself, with a shrug, 'Another charity,' and drop it in the fire, which is why I began with a joke, as something to which one listens more readily. Having listened, will you not now be kind?

"The reason why I, and not the appeal secretary, am writing—is writing—(every now and then the English language becomes quite impossible)—the reason, then, why one of us and not the other is writing to you is that there are people who look at the signature of a letter first; in which case, said the appeal secretary, my name would be the more helpful, though whether his hope is that you will have heard of me, or his fear was that you would have heard of him, I do not know. Yet, as a professional writer I could not but share his feeling that I should prove the more readable of the two of us. So I am hoping that you have read this letter; but I must warn you that, as a professional writer, I am not satisfied to be read for nothing. The question of the author's royalties is before you. Send what you can to me at the Hampstead General Hospital, and you will be glad and proud afterwards, and I shall be always.

"Your humble and grateful servant,

"A. A. Milne."

Middle Class Policy Undesirable, British Council Holds

That it is not desirable to formulate a middle class hospital policy was the stand taken by a council of the British Hospital Association appointed to study the subject at the recent meeting of the association in Manchester.

As the *Journal of the American Medical Association* reports the discussion of the subject, the council found it difficult to define "middle class," but it adhered to a definite scale of income above which patients could not be treated in hospitals otherwise than as private patients.

An attempt was made further to classify the patients, who have hitherto been placed in three groups: those unable to contribute in any way; private patients, who pay for special accommodation and who arrange for treatment fees independently of the hospital; an intermediate group of "tariff patients" who directly or indirectly pay part or all of the tariff charges of the hospital.

It was proposed that a distinct group of "aided patients" be recognized. This proposal, however, was vigorously opposed and the policy of the council returned to it for further consideration.

Should Public Charity Hospitals Pay Their Attending Staffs?

By C. W. MUNGER, M.D.
Director, Grasslands Hospital, Valhalla, N. Y.

TO WHAT extent are the attending staffs of public charity hospitals receiving monetary compensation? This inquiry, recently submitted to a representative list of city and county institutions, was made chiefly on behalf of city and county hospitals and did not include state or federal government institutions having full-time staffs. With the assistance of the Hospital Library and Service Bureau a questionnaire to secure this information was devised.

Because other tax supported hospitals may in the future be confronted with the problem of compensating attending physicians, it seems worth while to publish the results of this questionnaire. The following is an analysis of the replies that twenty-eight hospitals made to each of the seven questions asked:

1. *Question:* What is your policy concerning remuneration of members of your attending medical staff for services that they render to indigent patients who are handled as public charges in your institution?

Answers: No remuneration, 23; remuneration given—a number of the staff members are paid $5 a visit, 1; several of the staff are paid on a part-time basis, 1; a salaried county physician handles medical cases and surgeons are paid by the county for each case, 1; one-third of the money collected from part-pay patients goes to attending doctors, 1; some of staff are paid by the county, with ear, nose and throat work paid for from a private endowment, although a salaried county physician does most of the work, 1. It will be noted that 5, or 17.8 per cent, of the hospitals replying pay something to the doctors and that 23, or 82.2 per cent, pay nothing.

2. *Question:* If no remuneration is made, why not?

Answers: Not answered by hospitals which do offer pay, 5; answers from the twenty-three hospitals that do not offer pay and their reasons—medical experience obtained is compensation enough, 4; private room privileges and prestige of being on staff are compensation enough, 1; because it is a public charity hospital, 4; because it is a teaching hospital, 3; not appropriate for a municipal hospital to make such payment, 1; payment not justified because there are always more applicants than vacancies, 2; "Never has been our policy," 1; a voluntary staff that serves charity patients does not require remuneration, 1; the question has not been considered by either the profession or the public, 1; no finances are provided, 1; patients are unable to pay, 1; the city cannot afford it, 1. Two hospitals did not reply to this question.

3. *Question:* If remuneration is made, upon what basis do you compute the amount due a given staff member?

Answers: No answers from hospitals not offerfering pay, 23; answers from hospitals which do offer pay—"No real basis; as much as we can get money for," 2; a salaried county physician does most of work, but surgeons and others called in by him are paid according to services rendered, 2; some of the members are paid $5 a visit, 1. It appears from the answers to this question that the five hospitals that do offer compensation have not secured sufficient funds to enable them to work out well ordered plans for compensating their staffs.

3a. *Question:* If remuneration is made, what are your total expenditures for such remuneration and what is the average amount paid to each staff member?

Answers: No answers from hospitals not offering pay, 23; answers from hospitals that do offer pay—"Total of $1,405 for 1928 or about $200 to each service representative," 1; "Amount varies," 1; "No report available," 1; not answered, 2. The hospital paying $1,405 for 1928 is a municipal institution that reports that it pays $5 a visit to some members of its staff. Its capacity exceeds 1,000 beds.

4. *Question:* Do you remunerate members of the attending staff for such work as the teaching of nurses, for extra time devoted to the teaching of interns or for other activities not concerned directly with the care of patients?

Answers: No, 22; some are paid, 1; no train-

ing given, 1; not answered, 1; "We pay $3 a lecture for nurse teaching; intern duty only," 1; "We pay $5 a lecture for nurse teaching," 1; yes, 1. Twenty-two, or 79 per cent, offer no pay; 4, or 14 per cent, offer pay of some sort; 1, or 3.5 per cent, offer no training and, therefore, do not pay; 1, or 3.5 per cent, did not answer.

5. *Question:* Has your medical board ever expressed itself as to the theory of this matter? Does it believe that public funds should pay the attending physician in the same manner as full-time hospital workers?

Answers: Has declared in favor of paying, 2; is not in favor of paying, 1; has not declared itself, 12; has never considered it, 7; some members of the board think the attending physician should be paid, while others are definitely opposed, 1; not answered, 5. Nineteen, or 68 per cent, of the medical boards have not declared themselves; 2, or 7 per cent, are definitely in favor of pay; 1, or 3.5 per cent, is opposed to pay; 6, or 21.5 per cent, either do not answer or are uncertain.

5a. *Question:* If such payment is not approved, what are the reasons against it?

Answers: No answer from those not declared to be in opposition to payment, 27; "Because staff members are not resident physicians," 1.

6. *Question:* What do you, as superintendent, think of the future in public hospital work as regards the payment of the attending medical staff?

Answers: Those expressing doubt that staffs will ever be paid as a general custom, 8; those who believe it will be done sometime, 4; those who do not expect it (qualified), 8; those who do expect it (qualified), 2; those who do not expect it because there are more applicants than can be taken, 2; not answered, 4. Eighteen, or 64.3 per cent, do not believe staffs will be compensated in future; six, or 21.4 per cent, believe staffs will be paid in future; 4, or 14.3 per cent, do not answer.

7. *Question:* Granting that funds were obtainable, would you or would you not encourage such payment, and why?

Answers: Would not encourage payment, 11; would not encourage payment (qualified), 4; would encourage payment, 9; would encourage payment (qualified), 2; no answer, 2. Fifteen, or 53.6 per cent, would not encourage payment of staff; 11, or 39.3 per cent, would encourage payment of staff; 2, or 7.1 per cent, do not answer.

In summarizing the replies to the questionnaire, it will be noted that twenty-three out of the twenty-eight hospitals report no remuneration for their visiting staffs. Of the five hospitals that do offer pay, no two have the same plan for payment and only one has provided any definite figures, namely, $5 a call. Those who do pay apparently have not enough funds to establish any thoroughly worked out system for compensation.

Only two of the twenty-eight medical boards have declared in favor of payment of the staff members and only one has declared itself opposed. The fact that nineteen have issued no declaration on this point and that five fail to answer seems to indicate that in those hospitals the matter is not one of contention. There is an apparent lack of logical reasoning in some of the answers, although the greater number give sensible and carefully considered replies.

This small and superficial study can hope to do little more than present a cross section of the practice and thought on this subject in a representative group of hospitals that are supported through tax funds. The individual hospital must, of course, decide for itself. Questions of medical ideals and ethics, the omnipresent opposition by doctors to state medicine or anything that savors of it, the resources of the municipality, and the laws of supply and demand must all be considered by those who wish to make a decision in this matter.

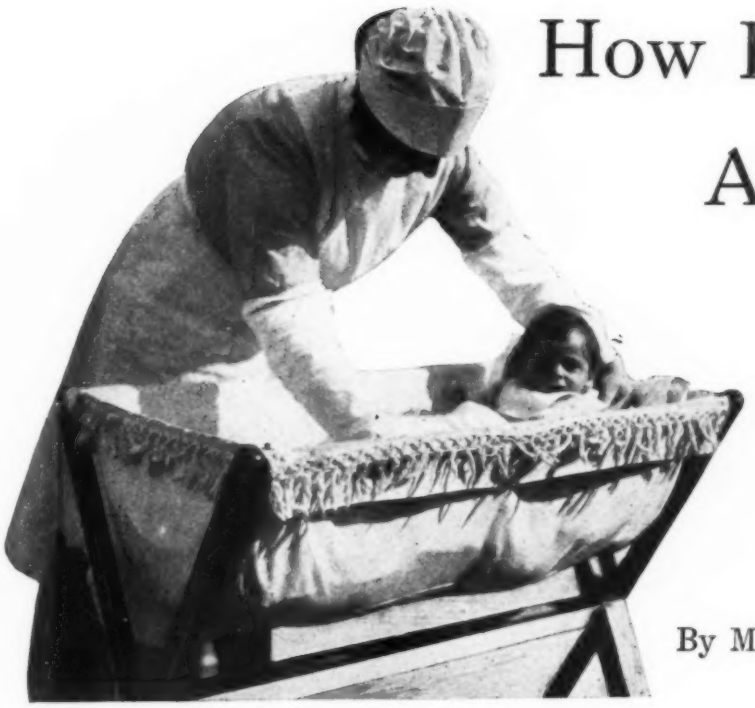
British Have Unique Seamen's Hospital

The Royal Hamadryad, a naval hospital that stands among the gloomy docks of Cardiff, Wales, was originally housed in an old vessel.

Long ago the Spanish frigate *Hamadryad* was taken by the English; when it became too old for use, a new ship was given the name, and eventually a third *Hamadryad* was built. This third ship, built in 1820, was costly but it was considered unseaworthy, and after much discussion, was converted into a seaman's hospital. For almost a century, although it offered little in the way of sanitation and ventilation, the old vessel was used for this purpose and the sailors loved it.

To-day, however, the sailors are just as fond of their up-to-date hospital as they were of the old condemned ship. Built on the docks at Cardiff, it is "of the sea salty" and is reminiscent of Mr. Peggoty's home, built out of a boat, described in "David Copperfield." The bell that is rung each day in the Hamadryad Hospital dates back to 1797, states the *Trained Nurse and Hospital Review*.

Realizing that a sailor's life takes him away from home and from all family surroundings, the hospital staff tries to give the patients a bit of home atmosphere and more freedom than is usual in a hospital. The patients come from the four corners of the globe—Greeks, Turks, Frenchmen, British and Americans, each with a different point of view—but all are made happy and comfortable because the Hamadryad Hospital is dedicated to those of the sea.



How Dublin's Babies Are Cared for at Teac Ultain

By MADELEINE FFRENCH-MULLEN
Secretary, St. Ultan's Infant Hospital
and
MICHAEL SCOTT
Architect, Dublin, Ireland

TEN years ago Ireland had no infant hospital; to-day the infant hospital in Dublin presents a pleasing front to the world in one of the poorest quarters of Dublin.

When the hospital opened in 1919 the infant death rate was 164 per 1,000 births, the highest of any capital in Europe. The death rate of infants during the last decade has fallen to 122 per 1,000 births, and the work carried on at St. Ultan's Infant Hospital is held to be a contributing factor.

The Rotunda, the great hospital that has made the name of Dublin famous throughout the medical world, was opened on March 25, 1745, in an obscure house off South Great Georges Street, with two patients. St. Ultan's also started in a modest way by procuring an old house in Charlemont Street, originally one of Lord Charlemont's country houses. The hospital began its work without money or influence, with two cots and very little money in the bank.

From the first our compatriots in the United States interested themselves in the project. A group of Chicago friends built the laboratory. The Association for the Relief of Distress in Ireland gave a generous grant to put the place in repair. At the winding up of the association, in 1928, they made an unsolicited grant of £2,000 which emboldened the hospital's board to begin the building of the much needed out-patient department.

The conversion of an old house into a hospital is rarely a success. As a rule in old mansions the reception rooms are lofty and spacious, the upper rooms small, with low ceilings. The mansion in Charlemont Street is unusual in this respect, the rooms on all four floors running the full width of the house. The front windows admit the morning sun, and the back windows, which are fitted with ultraviolet ray transmitting glass, admit the afternoon sun.

At one time the place was used as an orphanage and school of domestic economy and a large annex was then built at right angles to the main building. This now serves as a nurses' home. The laundry and drying room, another legacy from the school of domestic economy, add to the suitability of the premises for their present purpose. Nevertheless an adapted dwelling house has its limitations. In the new wing, however, the board has endeavored to show its conception of what an infant hospital should be.

The ground floor is devoted to the work of the extern department. The baby's place is in the home, and it is the work of an out-patient department to keep it there, and endeavor to make treatment in a hospital unnecessary. From the first, the promoters of St. Ultan's realized this truth, and from the opening day a dispensary was housed in a room in the main building. A few months later part of the old laundry was roughly fitted up, and there the work was carried on under primitive conditions for almost nine years.

The outstanding event of the past year has been the erection of the new out-patient department.

A flat roof at the back of the hospital is shown above, where the small citizens of Dublin enjoy the sunshine. Below is shown one of the passageways in the hospital which demonstrates how every inch of space was economically utilized.

A small shop adjoining the hospital was purchased and this and the old out-patient department were demolished. A new wing was built on the site, at right angles to the main building and reaching to the street.

Considerable difficulty in planning this new wing was experienced as the site was enclosed on three sides, and it was imperative that the old hospital should not be hidden by the new building more than was necessary. Rigid economy was of paramount importance, every inch counted in planning the rooms and passages.

The plan, as can be seen, is compact and straightforward. There is, on the ground floor, beside the street, a spacious shelter for perambulators, where a hygienic drinking fountain is conveniently placed. A passage from the shelter gives access to the lavatories, waiting room, doctors' room, treatment room and a light therapy room. These accommodations comprise the out-patient department. At the end of this passage there is a waiting hall for intern cases.

On the first floor are a diet kitchen and a milk room, with tiled walls, marble shelves and a fly screen fixed inside the window. From the diet kitchen runs a passage on the north side giving access to three single isolation wards, having doors and

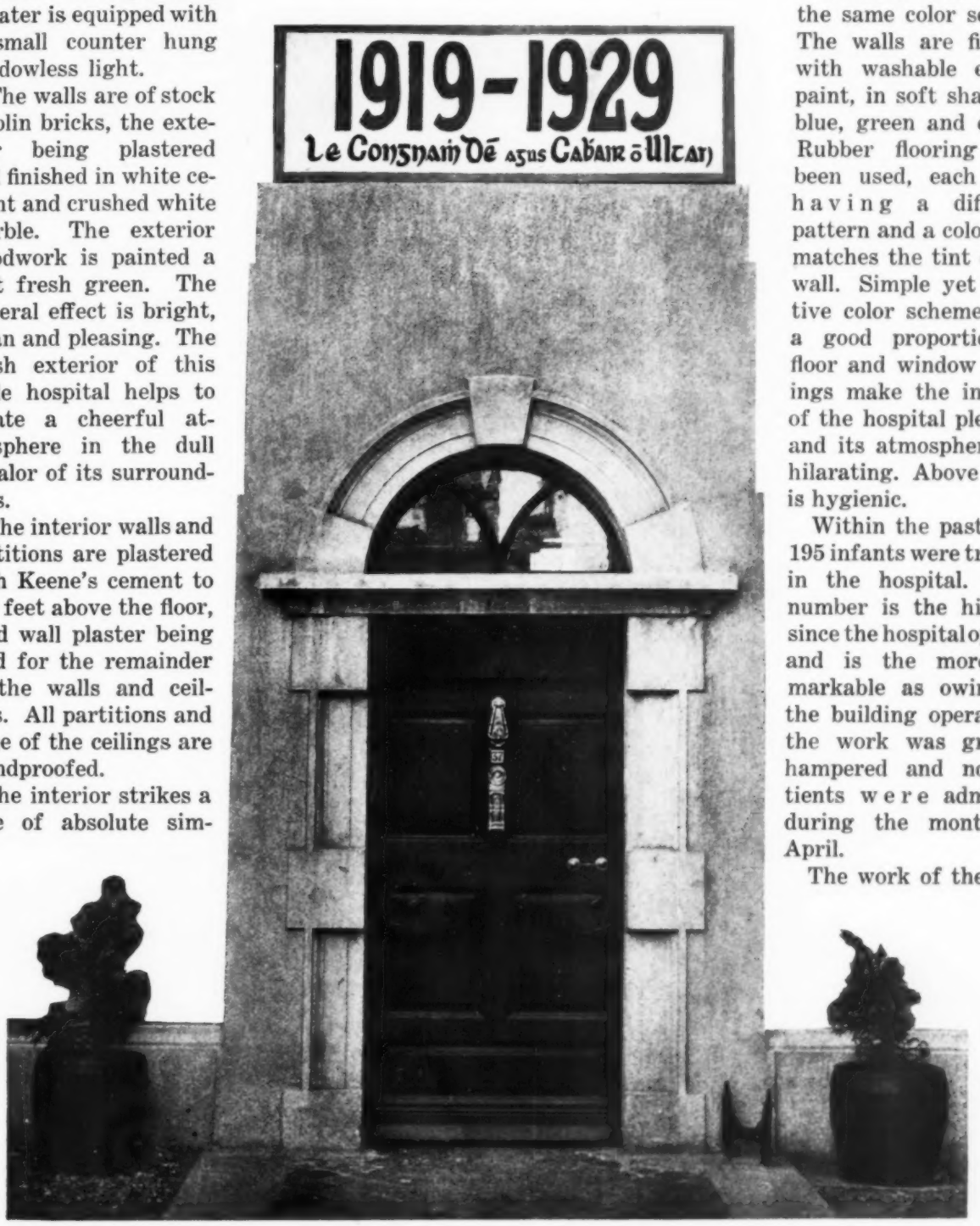
dividing partitions partly glazed. These wards face south and open on to a small balcony through French doors fitted, as are all the windows in this wing, with ultraviolet ray transmitting glass. The wing is centrally heated and the small wards can be kept at an even temperature, which is so necessary in Ireland's variable climate.

The upper floor contains two double wards which face south, a light therapy room, and a small operating block, which includes a doctors' room, a sterilizing room and a well lit operating theater. The operating theater is equipped with a small counter hung shadowless light.

The walls are of stock Dublin bricks, the exterior being plastered and finished in white cement and crushed white marble. The exterior woodwork is painted a soft fresh green. The general effect is bright, clean and pleasing. The fresh exterior of this little hospital helps to create a cheerful atmosphere in the dull squalor of its surroundings.

The interior walls and partitions are plastered with Keene's cement to five feet above the floor, hard wall plaster being used for the remainder of the walls and ceilings. All partitions and some of the ceilings are soundproofed.

The interior strikes a note of absolute simplicity, all unnecessary conventional decorations having been eliminated. There are no molded skirtings to the floors, no cornices to the ceilings, no architraves to doors—no moldings whatsoever to collect dirt and dust. These would possibly make the interior look pretty but they would incidentally increase the cost. The plastering is bull-nosed to meet the door and window frames, the ceilings are coved to the walls and the walls are coved to the rubber flooring by a pitch pine coved skirting.

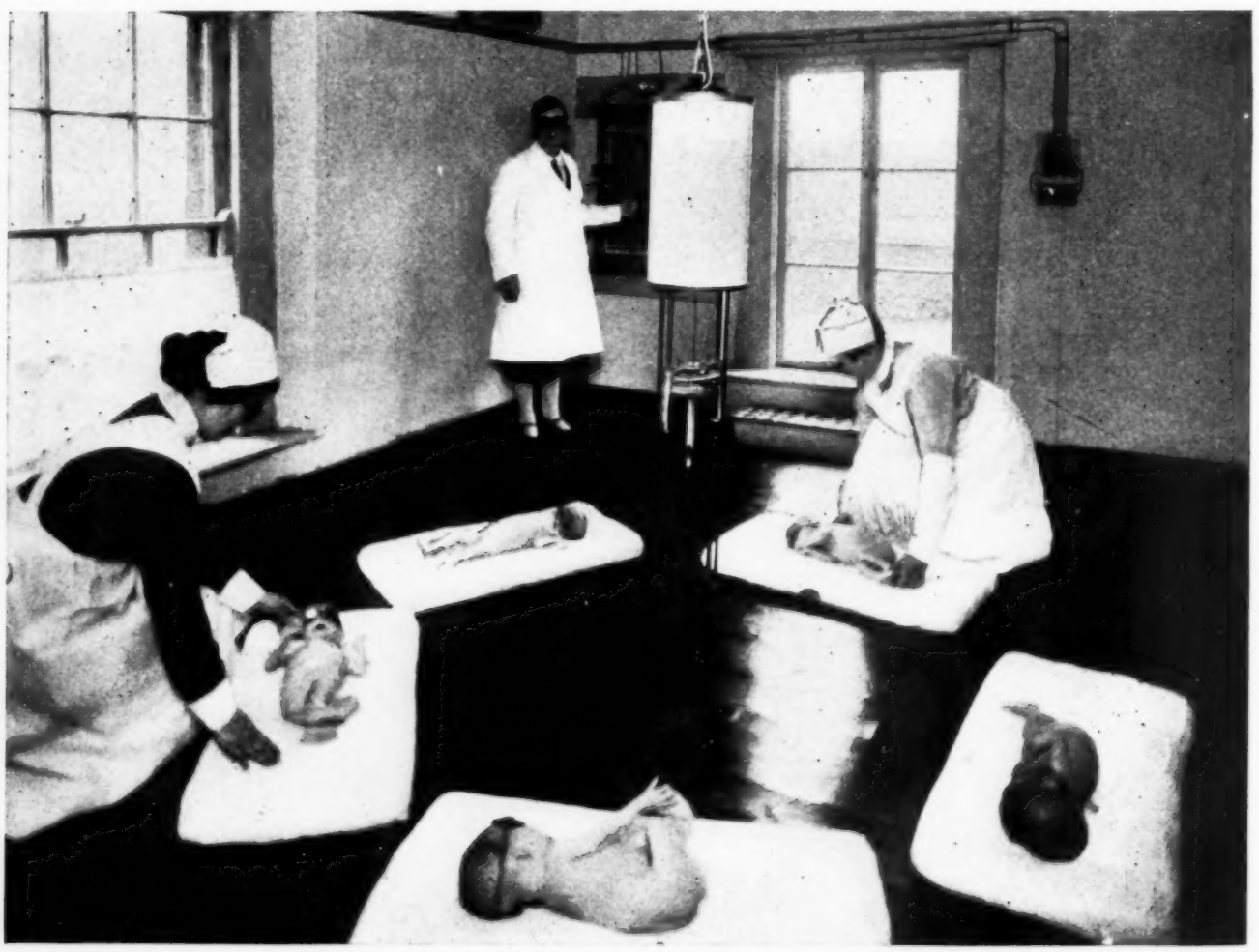


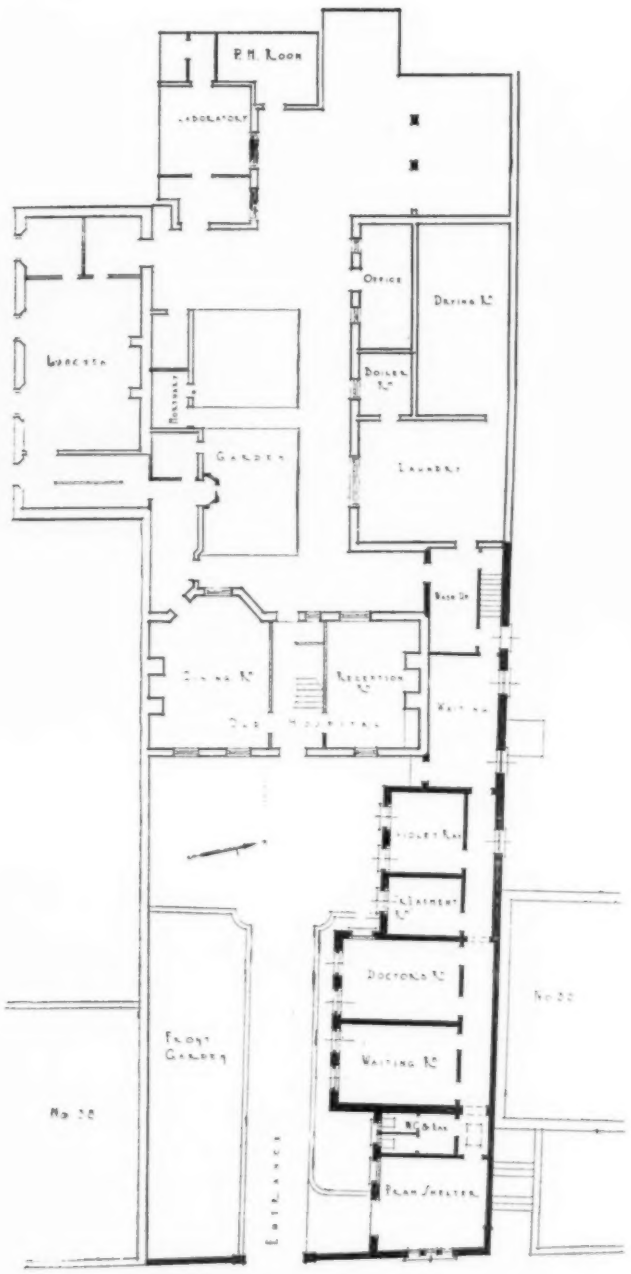
No two rooms have the same color scheme. The walls are finished with washable enamel paint, in soft shades of blue, green and cream. Rubber flooring has been used, each room having a different pattern and a color that matches the tint of the wall. Simple yet effective color schemes and a good proportion of floor and window openings make the interior of the hospital pleasing and its atmosphere exhilarating. Above all, it is hygienic.

Within the past year 195 infants were treated in the hospital. This number is the highest since the hospital opened and is the more remarkable as owing to the building operations the work was greatly hampered and no patients were admitted during the month of April.

The work of the out-

The laboratory, shown above, is on the ground floor and overlooks the garden. In the light therapy room shown below, the small patients are given violet ray treatment from the carbon arc lamp.





The old hospital and the new wing housing the out-patient department are shown in the ground floor plan above, while the plan at the right shows the wards and the operating and therapy room on the first floor.

patient department was also carried on under difficulties during the trying transition stage between the demolition of the old and the completion of the new building. Nevertheless, the numbers visiting this department have increased enormously, there being an increase of more than 500 patients over all previous years.

It is of interest to note that the board of the hospital is entirely composed of women and the visiting staff of women doctors. There are, however, eminent physicians on the consulting staff.

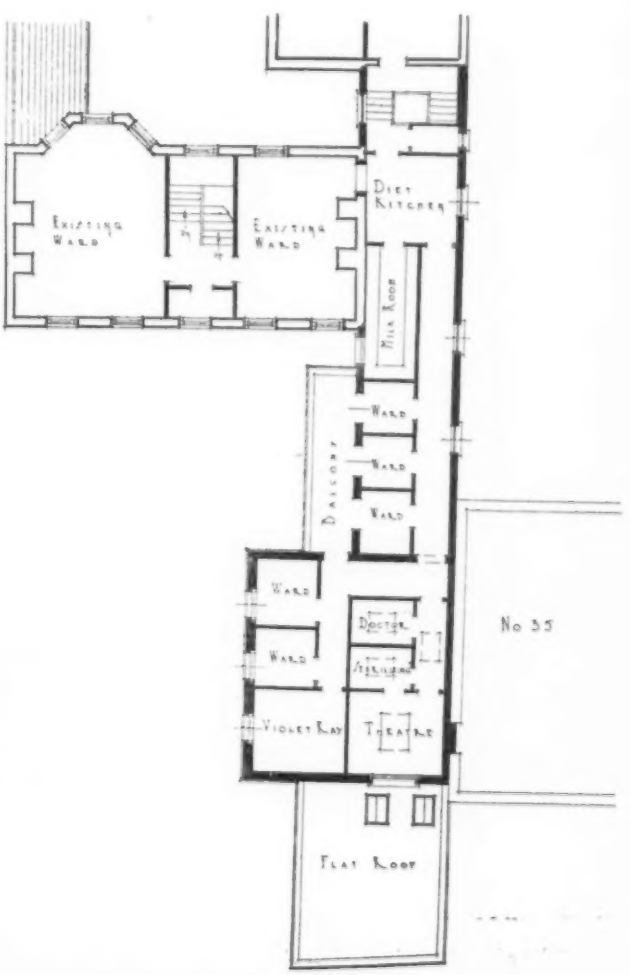
When the hospital opened, Dublin possessed two children's hospitals and several general hospitals, but as St. Ultan's treats exclusively infants under one year of age, there has been no overlapping and we have enjoyed the friendly cooperation and assistance of our colleagues throughout the hospital field.

Much has been achieved in ten years but much remains to be done. A converted dwelling house may serve the purpose of the hospital for a few years but no progressive community would be satisfied with a makeshift as a permanent arrangement.

Hospital Plans for Expansion

The board has purchased the ground on which the hospital stands and acting with foresight has, as opportunity offered, acquired the land to the right of the premises, bordering the canal. Practically the whole corner belongs to the hospital so it possesses a site on which to erect a modern hospital, when finances permit. The older building will serve to accommodate the increased nursing staff.

Then but not until then will Dublin have a hospital that is worthy of its diminutive citizens.



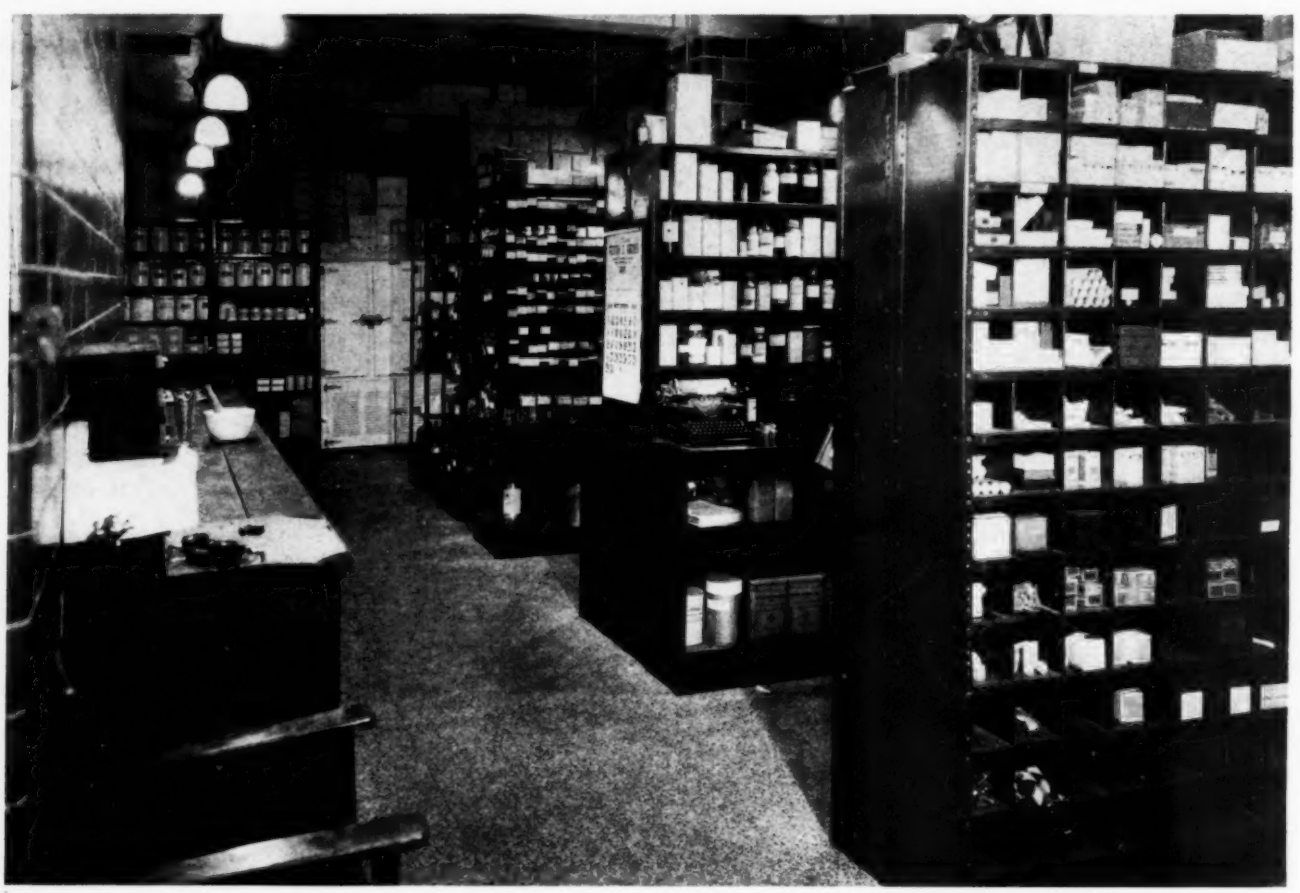
A Well Planned Hospital Pharmacy Also Serves the Public

By JOHN A. BORNEMAN
Chief Pharmacist, Hahnemann Hospital, Philadelphia

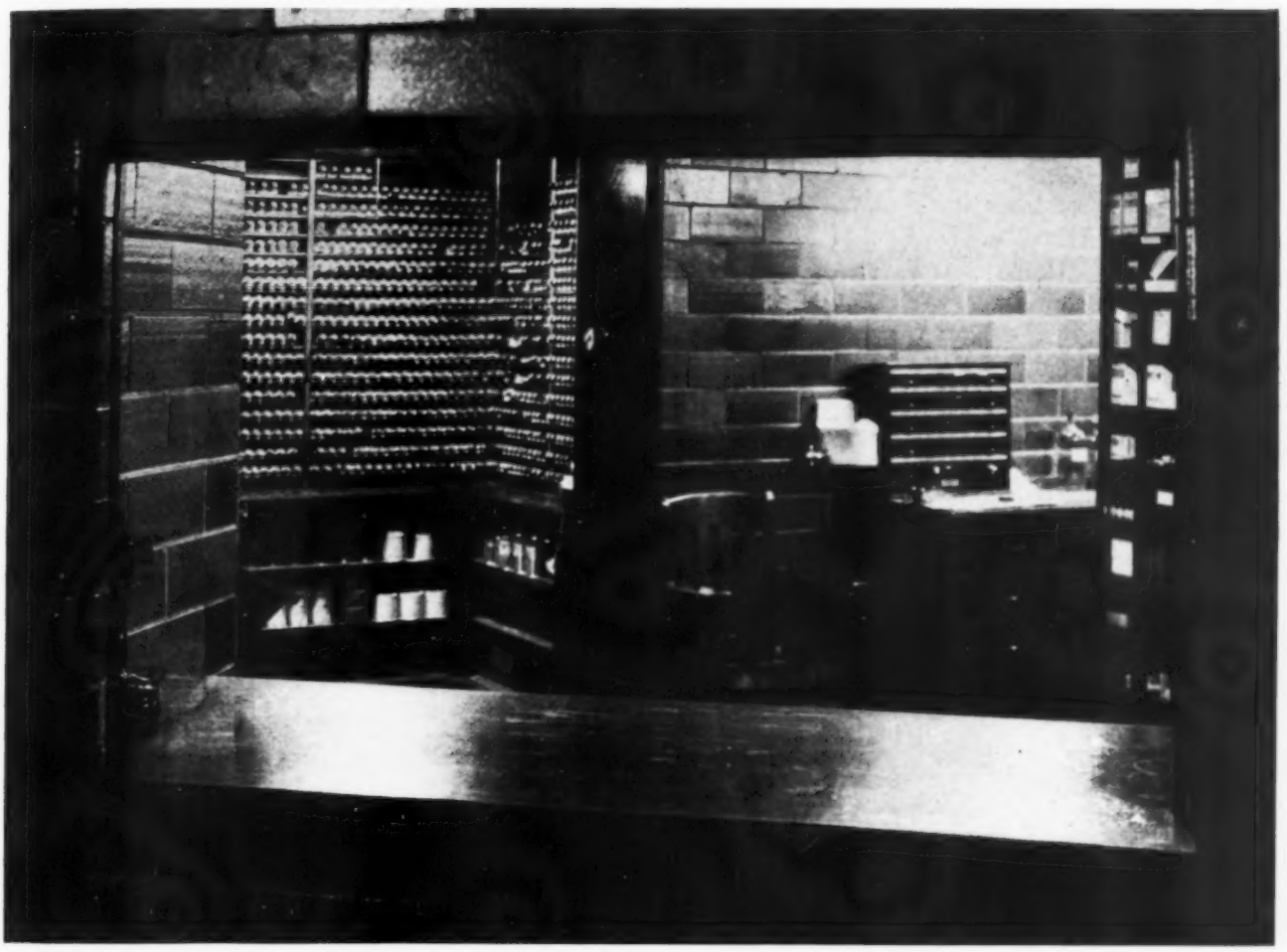
THE importance of the pharmacy was appreciated when plans were drawn for the Hahnemann Hospital, Philadelphia, and this department is therefore located on the street floor of the hospital in the public lobby, within twenty-five feet of the busiest entrance and near the service and passenger elevators. All outpatients must pass the dispensing counter on entering and on leaving the hospital and the pharmacy is equally convenient to patients in the first-aid department, to physicians, medical students, hospital personnel and the public.

The room is 44 feet long and 20 feet wide, with the dispensing counter diagonally across a corner. The dispensing counter is closed by means of a drop door, which is hung like a window with sash weights. At the opposite end is a door into a storeroom in the basement of one of the old buildings. A feature of this storeroom is a large fireproof room with an extra strong door, special locks, a burglar alarm and automatic sprinklers, used for the storing of alcohol and whiskey.

The dispensing room is supplied with hot and cold running water which may be obtained from two-compartment soapstone sinks with stone drain boards. Over one of these is a special rack for holding inverted graduates. Hot and cold sterile water from the central sterilizing plant is provided. A work table 20 feet long and 2 feet wide has ample drawer space for corks and other



The pharmacy is equipped with steel shelving, a work table and an electric refrigerator for biologic products.



The dispensing window of the pharmacy opens into the main patient lobby on the first floor of the hospital. The window may be closed by means of a drop door, hung like a window sash with weights.

bulky articles. Extending from the north wall in four tiers is stock steel shelving of various types to suit the different sizes of bottles and packages. One tier is composed almost entirely of small bins about six inches square at the front, to hold preparations that come in small containers. This shelving, which is open at the front, has proved a convenient way to keep stock in a busy pharmacy. The homeopathic tinctures and tablets are kept in bottles on shelving arranged in a slanting position so that the shelves contain twice as much as they would if the bottles were arranged vertically. In this case both bottles and corks are labeled, making it possible to select quickly the one desired. A spacious electric refrigerator with metal drawers provides storage for the large stock of biologic products, suppositories and other preparations that should be kept cold.

Drug Odor Annoyance Overcome

Openings into the soiled linen chute and the rubbish chute make it possible to dispose of soiled linen and all rubbish at any time. The floor is terrazzo. Because of the central location of the pharmacy it would be expected that drug odors would cause annoyance throughout the first floor and would be carried up through the building by the elevators and stairs. An opening from the pharmacy into one of the exhaust air ducts of the ventilating system seems completely to have prevented this trouble.

Outside Trade Is Encouraged

The pharmacy serves all of the patient floors of the hospital, having a total of 700 beds; the outpatient department, receiving 70,000 visits a year, the first-aid department handling 16,000 patients a year, in which many prescriptions originate; the visiting staff of 175 physicians and the public.

We encourage outside trade and find that it is increasing slowly, the customers to a large extent being the members of families of persons who have been patients. Physicians may buy whatever they wish and are given reduced rates. Ours, like similar departments conducted by other hospitals, is a real pharmacy without any of the toilet articles and gifts usually carried by drug stores. It contains a complete stock of homeopathic remedies, allopathic remedies and

biologic products. It is open during the week from 8 a.m. until midnight, on Sundays from 10 a.m. to 2 p.m. and 7 p.m. to 9 p.m., and on holidays from 9 a.m. to noon and from 5 p.m. to midnight.

The hospital is housed in one building of twenty floors and therefore the distribution of supplies from the pharmacy is nearly all in a vertical direction. Practically everything is delivered by means of an electric push button dumbwaiter, controlled from the first floor. During the time the department is open, every hour on the hour the dumb-waiter starts down from the top of the house, stopping at each floor for fifteen seconds. Prescriptions, requisitions and containers are placed on it and on reaching the pharmacy are filled and immediately sent back. At the same time the floors are telephoned that their supplies are being sent. This system keeps the floors supplied at all times and prevents a great deal of foot traffic to and from the pharmacy, resulting in a great saving of nurses' and attendants' time and in lightening the work of the elevators.

Small Personnel Adequate

The personnel consists of three registered pharmacists and a helper. This staff has proved entirely adequate, largely, we believe, because of the location of the pharmacy, its convenient interior arrangement and the use of the dumbwaiter. In addition to doing the dispensing, the department prepares antiseptic solutions, like compound cresols and liquid soaps, in a large steam kettle in the storage room. Tinctures and many other preparations are also made.

After one year of operation this pharmacy has proved adequate, satisfactory and economical in every way, and no alterations or changes in the arrangement of equipment have so far been suggested.

It seems evident that hospitals would benefit by conducting high grade prescription pharmacies so located as to be easily accessible to the street and that they should encourage the public to patronize them.

Can a Patient Complain With Such Service as This?

If the patients in the new Easton Hospital, Easton, Pa., complain about their food, it will be because the patients themselves are inherently disagreeable and not because the food service is not as perfect as present developments and improvements along that line will permit.

The facilities of the dietary department will be modern in every way. In the main kitchen on the ground floor, there will be ample store room and refrigeration. This department will be connected with the diet kitchens on each floor by a battery of high speed dumb-waiters and by one large elevator. Various sized steam cookers have been planned for the main kitchen. Steam cookers not only make it possible to prepare foods with a minimum loss of food value but they are also an economical means of preparing food in institutions.

A bake shop is being planned for the preparation of pastry and desserts. It will be equipped with mechanical mixers and special refrigeration. Modern dishwashing equipment, designed so that all dishes will be sterilized as well as washed, has been selected. Warmers for dishes will be advantageously placed in the department. A vegetable storage and preparation room adjacent to the main kitchen will be equipped with mechanical vegetable parers and other modern machinery.

There will be a diet kitchen on each floor for the preparation of special diets to be served to patients between the regular meals. Each tray will be prepared in the main kitchen and sent speedily to the floor and to the patient. Dishes designed to retain heat will be used, so that the patient may receive the food while it is hot. The central service kitchen makes it possible for the dietitian to check every tray to see that the patient receives the food that has been prescribed for him by his physician.

The baby formula room is also to be under the direction of the dietitian. Each formula ordered will be sent direct to the formula room and the formula made, in sterile equipment, and bottled in individual feeding bottles. Bottles will be marked with the baby's name and sent by the central service system to the children's department at the feeding hour.

A special dining room is to be furnished for patients who need dietetic treatment, but who are well otherwise. Arrangements will be made for these patients to take their meals in the hospital.

The entire dietetic arrangement of Easton Hospital follows the latest and most modern principles of serving meals by a system that was evolved by Asa S. Bacon, superintendent, Presbyterian Hospital, Chicago.

The Credit Age and Its Effect Upon the Hospital

"Hospitals should recognize the credit age as a reality," Ralph G. Walker, credit manager, California Hospital, Los Angeles, emphasizes in an article in *Western Hospital and Nurses Review*. "The credit age has important effects on this field and hospitals should join with the merchants to make the credit picture complete.

"Why should we try blindly to enforce cash terms where they are unnecessary and socially wrong? Why should we guess in granting credit? Should hospitals play the ostrich and hide their heads in the sands of cash terms and slogans?

"In self-defense every hospital should develop an efficient, well organized credit department. Hospitals have outgrown the business principles of corner grocery stores and now rank in importance with department stores. Are we to continue our backdoor tactics of stressing collections and choosing collection agencies?

"It seems logical that hospitals should investigate the credit risks as well as the merchants. Know the case early. Train the staff doctor to investigate. Deal openly and frankly, make stealing credit unnecessary. Then hospitals will merit the respect of the public."

Developing a Unit Radiation Therapy Service

By IRA I. KAPLAN, B.S., M.D.
Director, Division of Cancer, Department of Hospitals, New York City

IN THE course of the everyday work of a general hospital there occur many cases that require specialized treatment, either alone or in combination with surgery or medicine. Among these specialties, radiation therapy is becoming increasingly useful in the care of both acute and chronic cases. Radiation therapy is that form of treatment which makes use of the radiant energy of x-rays, of radium and of high frequency current.

The purpose of a unit radiation therapy service is to provide for radiation in the treatment of conditions for which surgery or medicine is not adequate, to assist in the treatment of malignant and benign conditions, alone or in conjunction with surgery or medicine, to provide a means for establishing a cordial relationship between the radiation therapy department and the other departments of the hospital and to place at the disposal of the hospital a department for research in the clinical study of the treatment of malignant disease.

The Need for Radiation Therapy Service

A general hospital needs to have as one of its integral parts and on a par with its other services, a well organized and well equipped radiation therapy department, manned by a staff capable of conducting the radiation treatment of both benign and malignant conditions. Although independently constituted, the radiation therapy department at the same time should be closely associated with all the other branches of the hospital so that it may be called upon by every service for consultation and assistance in the care and treatment of the sick. The service must be equally available for hospitalized and ambulatory patients, for those referred by the hospital divisions and the dispensary and for those referred from outside sources.

Associated with the radiation service in an advisory capacity should be a representative of the surgical and medical staff. The department should also have direct association with the pathological director. Furthermore, the service should be used not only for the treatment of the sick but also for the instruction of the house staff and the nurses. Provision, too, should be made for research work in the investigation of cancer and of such other diseases as are treated by radiation.

The physical construction of a unit radiation department should follow in general the outline suggested here.

The department should be on the ground floor, easy of access to all hospital buildings and conveniently accessible to ambulatory patients. The space allotted to it, sufficient for the construction of seven large rooms, should all be in one area facing directly an open street or a large yard and it should have direct light and ventilation through large windows. These rooms should be allocated as follows: two rooms for administering high voltage x-ray therapy, one room for low voltage x-ray therapy, a waiting room, a departmental office, an examining room and a combined storage room and work room. The ceilings should be at least nine feet above the floor level. The walls and partitions should be of rayproof barium plaster and brick, painted with rayproof barium lead paint. The treatment rooms should adjoin each other and they should be provided with lead covered and lead glass paneled doors and with lead glass observation windows. Each treatment room should be amply ventilated by a large shaded window, opening directly into the outer air, and lighted by adequate electric side brackets. It should also have an electric wall ventilating fan.

The Treatment Rooms

The treatment rooms should border on a private corridor in which the control posts are placed and from which the patient may be observed through a lead glass window. In size these rooms should be at least 15 by 20 feet, with doorways wide enough to make easy the passage of patients on wheel chairs or stretchers. There should be signal lights above the doors and these lights should be controlled by door switches to indicate when the room is being used for treatments. The floor

should be of wood or some other soft nonconducting surface. The machinery for generating the x-rays should be housed in separate rooms alongside the treatment rooms. These machine rooms should be ventilated to the outside air.

Next to the treatment rooms is the waiting room for patients. This room should be at least twenty feet square, and it should have two windows opening into the outer air. Into this room should open the control corridor, the entrance to the outside hallway and the office of the department.

The office should be 15 by 20 feet. It should be ventilated by a window to the outer air and should have sufficient electric outlets for lights and fans.

Next to and opening into the office should be the examining and operating room, provided with the necessary plumbing, water and gas, and electric connections for both direct and alternating current. The lighting should be sufficient to illuminate the room brightly, without glare, and a large window should open into the outer air. The room should have a tiled floor and walls and it should be equipped with the necessary sinks, washstands and dental cuspidor connections.

Next to this room is the work and storage room, at one end of which should be a reinforced concrete floor for supporting the safe that contains the radium. Adjoining this room it is advisable to place a toilet room for the staff.

Equipping the Therapy Rooms

The therapy rooms should have as equipment two heavy duty high voltage—200 kilovolts—x-ray machines of the mechanical rectification, (through toroid and spheres) type, with heavy duty shockproof standard control cabinets and large milliampere meters and with adequate switches and controls all properly fused, and one mechanically rectified medium voltage—120 to 150 kilovolts—superficial therapy machine with proper control board. To each therapy machine should be attached an automatic time switch.

The main power switch for alternating current and the lighting switches of direct current should be in the corridor outside of the treatment rooms, alongside the control posts. Each machine should have a separate power switch.

The superficial therapy room should have an alternating current outlet for connecting to a diathermy apparatus mounted on a movable stand and provided with the necessary electrode cords and equipped with an automatic time switch.

The high tension overhead transmission lines should be of approved heavy duty nickeled brass tubing, properly insulated and suspended at least twenty inches from the ceiling and ended in smooth spheres. The reels should be of a heavy spring return type and the connecting cords of heavy twisted copper wire. To each overhead transmission installation should be attached the millimeter and sphere gap, both visible from the control post through a lead glass window.

Each treatment room should be equipped with an adjustable table, an open type heavy therapy tube stand, a Coolidge air cooled therapy tube, a lead impregnated sheet rubber, and a rubber curtain on a stand, several localizing cones of various sizes to fit the tube stand, adequate shelves and brackets, pillows for the table, sandbags and small bags of bolus alba, a wall mirror, ventilating fans, window shades and adequate steam radiators.

The Waiting and Operating Rooms

The waiting room, which is the entrance to the department, should contain enough white enamel benches, to seat at least twenty-five persons comfortably at any one time. It should have also a wall mirror and a coat closet for the staff. It should be softly lighted and should open directly to the outside air by means of two windows. There should be sufficient steam heating for winter comfort, and electric fans for summer ventilation. One wall should have painted on it a large white area to serve as a screen for stereopticon pictures when the room is used for teaching purposes. One corner near a window and opposite the door should be surrounded by a railing partition for the desk of the reception or record clerk. Sufficient wall receptacles should be placed about the room for desk lamps and other portable attachments. A special receptacle of high voltage should be supplied for stereopticon connection. A large blackboard is valuable for demonstrations. The floor should be of colored tile that is easily cleaned. A drain in the center for flushing is preferable. A large wall clock should be in the room.

The operating and examining room should be used for all examinations, for minor operations, for required treatments with radium and for dressings. It should have as equipment a wall clock, a wall mirror, a sink for utensils and one for hand washing, indirect electric lighting, wall receptacles on all walls four feet from the base line, both alternating and direct current electrical supply, window shades and ventilator, two instrument cabinets built into the wall, one medicine chest, a chest of drawers, a large instrument table, two bedside instrument tables, one adjustable operating table, two adjustable metal stools, two chairs, one dental chair and cuspidor, one electrical instrument sterilizer, one gas utensil sterilizer, one Bunsen burner, surgical and special instruments, various utensils, a suction apparatus, portable floor lamps and a multotherm.

The combined storage room and workroom should contain a wooden workbench, a lead lined safe for radium, various tools, a large iron vise, sheet lead, molding wax, rubber tubing, wall receptacles and lighting brackets.

How the Radium Should Be Distributed

The department should have at least one gram of radium element distributed in tubes and needles of various sizes and filtration. The needles should be as follows: 15 monel metal needles, 27 millimeters long, containing two milligram radium element each; 10 needles of 0.5 millimeter platinum filtration, 25 millimeters long, containing one milligram radium element each; 25 needles of 0.5 millimeter platinum filtration, 27 millimeters long, containing two milligram radium element each; 35 needles of 0.5 millimeter platinum filtration, 35 millimeters long, containing two milligram radium element each; 15 tubes, one millimeter platinum filtration, 22 millimeters long, containing 5 milligram radium element each; 15 tubes, one and one-half millimeters platinum filtration, 22 millimeters long, containing 5 milligram radium element each; 15 tubes, one and one-half millimeters platinum filtration, 22 millimeters long, containing 10 milligram radium element each; 15 tubes, one and one-half millimeters platinum filtration, 22 millimeters long, containing 15 milligram radium element each; 10 tubes, one and one-half millimeters platinum filtration, 22 millimeters long, containing 25 milligram radium element each; 4 tubes, one and one-half millimeters platinum filtration, 22 millimeters long, containing 15 milligram radium element each; the necessary radium instruments and lead lined carrying boxes.

The radium distributed in this manner can be used for all kinds of applications. The radium safe, of iron with a combination locked outer door and a key locked inner door, must be lined with four inches of lead and must contain eight lead and metal drawers drilled for the needles and tubes.

The department should have a supply of necessary linens and incidental supplies, a wax mold water bath, gas heated, special instruments, such as a laryngoscope, a proctoscope and headlights, and a surgical light and diagnostic set.

Radium emanations may be purchased when and as needed. Most of the therapy requiring radium treatments can be carried out efficiently with the one gram of radium element already mentioned. Emanation need be used only in the form of gold filtered seeds for permanent implantations in lesions not readily accessible to the temporary application of radium element.

The office should have three desks, one each for the attending physician, the resident intern and the chief charge nurse. It should have five chairs, filing cabinets, desk lamps, desk sets, wall ventilating fans, a supply closet, a blackboard, side electric receptacles for the attaching of microscope lamps, a microscope, demonstration lamps for illuminating x-ray plates, a mirror, stationery, such as paper, envelopes, treatment, index and synopsis cards and history and follow-up sheets. Telephone connections should be of two types—one for interhospital communication and the other for the general switchboard service.

Attached to the radiation service should be a radiation ward for patients requiring ambulatory radium treatments over a period of twenty-four hours or more, for patients from other wards and services who can be conveniently moved to it and for patients requiring radiation over a long period of time with special attention by the therapy department. The ward should consist of two parts—one for male patients and one for female patients—each containing ten beds. Of course, those patients essentially surgical or gynecological are to be radiated on the respective wards used for this work. The radiation ward should be served by the pupil nurses especially taught for the work, and it should be in charge of a graduate trained radiation therapy nurse.

The Department Must Be Adequately Staffed

The senior intern should be in direct charge of the routine ward work incident to the care of the patients undergoing radiation treatments. Patients should be accepted on the radiation ward only after having first been accepted for the regular surgical, medical or special services of the hospital and subsequently transferred to the radiation service when that type of treatment is required.

If possible, all cases should be photographed by the official hospital photographer. An advisory group appointed by the medical board of the hospital and consisting of a surgeon, an internist and the pathologist should be available for conference with the radiation therapist.

This department to function properly must be adequately staffed. Through its directing head it must make contacts with the other services of the hospital that will engender respect, assistance and a demand for its service. The radiation department, essentially a clinically working organization, must function in cooperation with all the other services of the hospital. Accordingly, the staff should consist of an attending medical officer, the radiation therapist, a senior assistant and two junior or adjunct assistants, two resident interns, two nurses, a technician, a stenographer clerk and

an orderly. The attending radiation therapist must be a clinician especially trained in this work, since he is the directing head of the department in full charge of the work and its staff. It is he who decides the method and policy of treatment, who must cooperate with the other attending medical men of the hospital and who must be responsible to the medical board for the kind and quality of the work performed by his department.

The senior assistant will be in charge of the service in the absence of the chief and will carry on the work. The junior assistants are in charge of some specific phase or part of the work of the department and serve mornings and afternoons alternately. The two resident interns should each serve one year, the term of service for one beginning in January and for the other, in July. The senior resident should have charge of the actual radiation treatment work and of the radiation ward. The junior intern should do all the clinical work and the history taking and he should assist the senior intern. In rotation the junior shall succeed to senior position after six months' service. The resident intern should receive a salary and maintenance.

The two nurses should be graduates, trained in surgical technique. They are to care for the instruments, assist at such operations as are incidental to the radium treatments, arrange patients for treatment and assist at the adjustment of patients for x-ray treatments. The stenographer should do all the necessary clerical work of the department and should have charge of the patients' records. The technician does the manual work of operating the x-ray machinery and preparing the radium applicators as circumstances of the department require. The orderly transports patients to and from the wards for treatments. The nurses, the clerk, the technician, the orderly and the residents should be paid a suitable salary.

An Outline of Department Routine

The routine of the department may be described as follows: Patients are referred for consultation or for treatment. If they are referred for consultation, such consultation may be departmental or in conjunction with other medical men and will result either in a decision to treat or in a decision not to treat, with treatment by radiation alone or by radiation combined with other forms of therapy. Radiation may be by x-rays, radium, endothermy or a combination of some or all of these. Patients who may be treated include ambulatory patients, those on the radiation ward or those hospitalized to some other service. A complete history and record of all treatments and examinations are kept permanently.

The construction cost of a radiation therapy department, varying with location, position and space available, will approximate $10,000 to $15,000. The equipment cost will be somewhat as follows: x-ray apparatus, $15,000; one gram radium, $70,000; surgical and medical equipment, $5,000; apparatus, tables, tube stands, $3,000; office and household equipment, $2,500; incidentals, $2,000. The amount to be estimated for salaries will include: medical attendant, none; medical assistants, none; 2 resident interns, $3,000; 2 nurses, $2,400; 1 technician, $1,500; 1 stenographer, $1,500; 1 orderly, $960.

Hospital Wins Suit Involving Nurse's Negligence

That a nurse may be guilty of negligence in her treatment of a patient and not always guilty of his death, though it immediately follows, was indicated in a recent decision handed down by Judge M. M. Logan of the Kentucky Court of Appeals, and reviewed in the *Frankfort, Ky., State Journal.*

W. B. Hicks underwent an operation at the Harlan Hospital, Harlan, Ky., in March, 1928. The surgeon who performed the operation told the head nurse to keep the patient's mouth closed by raising his lower jaw. Otherwise he might die of strangulation. The head nurse instructed a second nurse to that effect and the second nurse instructed a third nurse who relieved her later at Hicks' bedside. The patient died, apparently of strangulation, and the estate sued the hospital. The hospital's attorneys held that Hicks' died from other causes. The circuit court of Harlan decided for the hospital and the case was carried to the court of appeals.

Judge Logan held that an accident following acts of negligence cannot always be blamed on the person guilty of the negligence. "The hospital was well within its rights in attempting to establish that the negligence of the nurse, if any, did not occasion the death of Hicks," Judge Logan wrote. "As it introduced proof to this effect it was a question for the jury to determine whether the nurse was negligent, and if the jury did determine that the nurse was negligent, it was necessary for it to determine whether the negligence of the nurse caused the death of Hicks."

Four Lepers Are Released From Leprosarium, Cured

Probationary papers ordering the immediate release of four lepers from the National Leprosarium in Carville, La., were authorized Oct. 15 by Dr. Hugh S. Cumming, Surgeon-General of the United States Public Health Service. The quartet, apparently cured, will remain under the surveillance of proper authorities for a certain period.

In announcing the latest probations, the health service advised that fifty-six lepers have been released from the leprosarium since its founding in 1921, and that only one of this number has since been returned for further confinement.

At present, 304 lepers are retained in the national institution, and each is receiving constant attention and the best of medical aid, according to the announcement.

How the Small Hospital May Group Its Services Effectively*

By RALPH M. HUESTON
Superintendent, Silver Cross Hospital, Joliet, Ill.

ONE problem that must be solved by the superintendent of every small hospital is the problem of grouping divisional responsibilities in such a way that the greatest amount of service can be offered with the minimum number of personnel. The size of the hospital and the type of service expected are the chief factors that govern the possibilities for combining certain divisions or for grouping multiple responsibilities under one head.

The hospital's local conditions and the unit service demands prohibit standardization of responsibility groupings to any great extent. There are, however, several groupings of responsibility that have been tried often enough to be accepted as standard. Examples of attempts at standardizing multiple responsibilities under one head are to be found in the smaller hospitals, probably because the demand for unit service is less and also because the problem of finance is greater.

In the very small hospital little or no attempt is made to separate department responsibilities by definite division lines. In hospitals of this class the superintendent, in addition to her duty of general supervision, frequently has direct charge of the operating room and the birth room, and in some cases she is even responsible for the bookkeeping for the hospital.

Choosing the Assistant Superintendent

In hospitals, and especially in hospitals operating schools of nursing, where the superintendent is also the superintendent of nurses, it has become a problem to determine who shall be selected to act as assistant superintendent. Usually the educational director acts as assistant superintendent, but when there is no educational director the operating room supervisor most often is selected. When the school of nursing has only a limited number of students and when the operating room service is not large, the policy of having the assistant superintendent act as educational director and also as operating room supervisor has been found desirable. When a program of this kind is followed, the superintendent and the assistant superintendent usually assume all the major responsibilities in the hospital.

In the larger hospitals of the small hospital class, where the nursing division has as its head a superintendent of nurses and she in turn has an assistant, it frequently has been found desirable to have as the assistant superintendent of nurses one who either has had experience in the educational division as an instructress or one who not only acts in the capacity of assistant superintendent of nurses but who also has a direct responsibility in the educational division. It has been found desirable to have the assistant superintendent of nurses act as practical instructress of nurses, because as assistant superintendent of nurses she checks the service of the floors and is thus able to study the practical development of her theoretical instruction.

Securing a Pathologist Through Cooperation

One of the ambitions of almost every small hospital is to have at some time the service of a pathologist. Usually it is a problem of finance that keeps the hospital from employing a pathologist. In some communities this problem has been solved through the help of staff physicians in promoting a demand for a commercial laboratory. If there is a medical arts building or a clinic building, a group of physicians working with the hospital can offer a field for a pathologist. The clinic physicians especially, and also other local physicians, may have the services of a pathologist through the commercial laboratory, and the hospital may provide an additional incentive for the pathologist by employing him for part time. Although the pathologist will render many indirect services in connection with his duties in the laboratory, the hospital can finance all or at least the greater part of his salary by special charges for routine specimen examinations. Generally the pathologist who is employed part time in the smaller hospitals is on a straight salary basis.

*This is the fourth of a series of articles on small hospital problems. The other articles appeared in the April, June and October, 1929, issues of THE MODERN HOSPITAL.

A roentgenologist may be secured for part-time hospital service in much the same manner as the pathologist. However, it has been found better for both roentgenologist and hospital to have the roentgenologist on a commission basis. This is because of the great demand for call service. The rates charged should be under the supervision of the hospital. The roentgenologist will respond more quickly to call service and will give more time and consideration to general service if he is on a commission basis.

The Value of Versatile Workers

Usually the number of men employed in the service department of a small hospital is limited. Every man employed in this department should be trained in the duties of the other men so that, if necessary, any one of the men could do the work of any other man. In one 125-bed hospital five men cooperate to maintain the service of the institution. The men employed are a chief engineer, a painter, a house service man, a wash man for the laundry department and a night fireman. The chief engineer has general supervision of the entire service and is directly responsible for the maintenance of the heating, plumbing and electrical service, in addition to his duty as day fireman. The painter who is mechanically inclined was encouraged to take special work in the public night school in heating, plumbing and electrical engineering. Following the completion of his courses in the night school he was permitted to assist the chief engineer. The chief engineer not only gave the painter practical instruction in the maintenance service but also trained him to fire the boilers and to operate the washers in the laundry department.

The house service man was formerly a fireman. The house service man relieves the chief engineer at the boilers when it is necessary for the chief engineer to go to some other department. The wash man is needed in the laundry department only in the morning. In the afternoon he acts as a general service man and relieves the engineer and the house service man on their half days. The wash man relieves the night fireman on his half night. The night fireman was selected from the day force. From about May 15 to about October 1, when the night fireman is not needed for night duty he is used for vacation relief for the engineer, for the house service man and for the wash man, and when he is not doing this relief work he is used as gardener in charge of all outside service.

One bookkeeper, with assistance from the clerical force, can do all the bookkeeping in the average small hospital. A great many hospitals have found it desirable to maintain full twenty-four hour service at the switchboard. This service has three distinct advantages: The business office can maintain a twenty-four hour clerical service; the night nurses are relieved of the responsibility of servicing the switchboard; the clerical schedule can be arranged to allow the bookkeeper an assistant for two to three hours during the day, and at night the clerk on duty can do a great deal of the routine office recording and filing. When a collector is employed he sometimes acts as an assistant to the bookkeeper.

Few small hospitals are served by a full-time record librarian. Usually the responsibility of this office is divided between two or more persons. Every hospital has some stenographic work. Often the bookkeeper is also the stenographer. In hospitals where the duties of the bookkeeper are such that she does not have time to do the stenographic work, a medical stenographer frequently has been employed to fill the combination position of stenographer and record librarian. The attending physician should take the patient's history but in many hospitals this responsibility is delegated to some member of the hospital. If the hospital has interns or resident physicians they take the histories, but if the hospital does not have interns or resident physicians the responsibility usually falls upon a nurse.

Combining Positions Successfully

If the surgical service requires only a part-time anesthetist it is not uncommon to find the part-time anesthetist filling the combination position of anesthetist and assistant to the record librarian. It is a distinct advantage, especially in surgical cases, to have the anesthetist take the histories. As a result, the position of combination anesthetist and assistant record librarian has been found to work out successfully. The medical stenographer in going to the various laboratories or departments is qualified to take the medical dictation direct from the attending physician. This service has been found to improve materially the detail of the case history records.

Many small hospitals, with the assistance of the attending physicians who review or check the service, are dependent on technicians in both the clinical and the x-ray laboratory. Sometimes the service in those two departments is so limited that the hospital is not justified in having both a clinical laboratory technician and an x-ray technician. In these hospitals one technician frequently fills the position of clinical laboratory technician and x-ray technician. A less frequent but nevertheless a meritorious combination is that of pharmacist and clinical laboratory technician.

Practical Administrative Problems:

Balancing the Income and Expense Columns of the Ledger

By JOSEPH C. DOANE, M.D.
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A COMMUNITY that consists of homes, whether they are numbered in hundreds or in thousands, represents in the last analysis a cooperative system of living. No individual in any one of our towns, cities or commonwealths is capable of living wholly without the aid and understanding cooperation of those about him. Each individual in some degree is dependent upon some other individual for livelihood, for entertainment and for aid.

In days gone by, men and women on the frontiers gathered together for mutual protection against hostile invaders. In this modern age, the same gregarious instinct is manifested when men and women choose to congregate in towns or cities to pursue the serious or lighter business of life. So it may be said that, since it is usually impossible for man long to exist in solitude without the pleasant surroundings which friends, places of worship and places of amusement create, it is impracticable for him to receive proper curative attention without the advantage of the cooperative effort of his fellow men which is expressed in the presence of a modern community hospital.

It was indeed a worthy ideal that created the formerly more common designation for hospitals throughout the world—the Hotel Dieu. These houses or hostelries of God, symbolized the all-inclusiveness of the charitable appeal which brought them into existence, and although there are still many creeds and churches, there is today manifested a distinct tendency to draw closer together all those who worship under variously denominated religions and beliefs.

Community Conscience Is Awakening

Insofar as the hospitals of this generation are concerned, the signs of the times seem to point to a more definite recognition of the common appeal represented by the institutions of healing in this country. The hospital in the typical community, therefore, is rightfully assuming the position of a common asset and, in a no less certain sense, a common responsibility. The community conscience, insofar as it relates to the support of the hospital, has been awakened. As evidence of this fact is the ever increasing number of community chests and welfare federations. The day is fast approaching when unhealthy competition between hospitals must give way to a realization that all such institutions deserve and must receive the united support of all. An appeal circumscribed by religious, political or other more or less artificial boundaries loses greatly in effectiveness. While much headway has been made along these lines, many problems still await solution.

Educational Work Needed

How, for example, should the person who has contributed a meager sum to the community chest be answered when he requests free treatment in a participating institution? Should the payment of a paltry poll tax entitle a citizen to free treatment in a public hospital? Moreover, much educational work is yet to be done in convincing the average citizen that the conduct of a nonproprietary hospital of whatever size is, at the very start, doomed to failure from a financial standpoint. The reasons for this statement are obvious. Yet there is much propaganda throughout the land intended to convince an unthinking public that the financial methods of the hospital are questionable and that in some ill understood way great profit is accruing from the activity of such institutions.

As the education of the youth of the land is necessary to the perpetuation of civilization and national security, so is the preservation of the health of young and old necessary to the continued industrial and cultural progress of the country. Because of a recognition of this fact in some localities, one observes the appropriation of state and county funds for the care of those patients who are unable to supply their own financial wants. It is, therefore, in the treatment of part-pay and free ward patients that the hospital expects to sustain its loss.

It may be said that no institution should experience a financial disadvantage from the treatment of private and semiprivate patients. To be sure, in many instances some semiprivate beds are scantily self-supporting. Yet the profit that

accrues from the treatment of private patients should offset this usually moderate loss. With the present system of fixing hospital charges, for some reason not fully understandable, the charge for full-pay ward patients has been placed far below the actual cost to the hospital. The economic wisdom of such a policy is certainly very much in doubt.

How Patients Are Classified

The inhabitants of any community may be divided into three general classes insofar as their economic relationship to the hospital is concerned: those who are able, or at least willing, to pay for private or semiprivate accommodations when they become ill, and who expect to reimburse their physician for his services; those who are able to pay a part of their hospital expense and who are willing to occupy ward beds; those who are not able, or at least not willing, to reimburse the hospital in any degree for the services they receive.

The financial and humanitarian success of the work of any institution depends in a large measure on the skill with which these classes are differentiated one from the other, since few representatives of these groups come to the hospital with a self-made diagnosis. This, perhaps, is less true with regard to the representatives of the first group. Yet in many instances, patients are willing to accept semiprivate service when they could afford private accommodations or when, on the other hand, they should be allocated to the ward and not permitted to incur a financial obligation they are unable to meet.

Establishing Patient's Credit

What, then, are the points of distinction that differentiate the members of these groups? Are assignments to hospital beds made because of personal inclination or because of the frank exhibition of a veracity as to the patient's economic abilities? Do motor cars, fur coats, size of families or gross or net amounts of income rightfully serve as deciding points in this most interesting and difficult diagnosis, or is it more often the presence of an ability to borrow or the existence of a family pride which makes the selection of hospital facilities a matter in which the hospital has no part? It is, of course, taken for granted that no institution will adopt the doubtful practice of securing all the money possible, without regard to the effect its expenditure will have on the individual and on the community generally.

Often the service that a well equipped and tactful credit officer or admitting clerk may render to a hospital is one with more far-reaching potentialities than the mere effect the activities of this person have upon the hospital day sheet. It may be at times as important for a patient to be directed to a semiprivate or ward bed for which he is able to pay and which, because of this fact, will return to the hospital at least a cost price, as to allow such persons to occupy private rooms for which the hospital may later be unable to collect. When one observes the size of certain bad debt accounts that have accumulated in hospitals, he wonders whether the credit worker was equipped with as keen a diagnostic sense as he should possess. To descend, therefore, from generalities to more specific statements concerning the question of how to make the income and expense columns of the hospital's ledger more nearly balance, it may be said that while the need for hospital care should dominate every other situation, after the patient is safely under treatment the establishment of his credit, insofar as the payment of bills is concerned, should be given serious thought.

How Credit Officer Must Function

What is the nature of the process often described as the establishment of credit? Surely a satisfactory method of satisfying present and future indebtedness to hospitals is the policy of paying for treatment in advance. Yet, while many institutions require the payment of a week's board upon the admission of the patient, such a policy is not always either possible or even fair to the patient himself or to his relatives. A credit officer must possess a curious mixture of the qualities of the bank president and those of the social worker. He must display a keen insight into the practicalities of business life and yet he must have many of the softer humanitarian attributes so necessary to hospital work.

He should know much concerning the institution in which he works. A knowledge of floors, rooms and corridors must be at his finger tips. He is frequently the salesman who is able to assist in fitting hospital facilities to the personal wishes, the financial possibilities and the individual idiosyncrasies of the institution's patrons. He knows concerning the compass exposures of rooms, and he hesitates to recommend the acceptance of quarters that he feels would prove unsuitable to the particular individual. In larger institutions, it may be the admitting officer who furnishes these necessary salesmanship qualities. But, whether this particular function is performed by the former or by the latter, both of these officers should possess a genuine community instinct as well as an undoubted loyalty to the

hospital in which they labor. It may be necessary for the credit officer to discourage the occupancy of accommodations beyond the financial reach of the prospective patient and to urge that those chosen be of equal medical promise, perhaps, but of less cost.

Why Hospitals Have Deficits

Many a distraught superintendent has endeavored to learn the reason for the financial straits in which he and the members of his board of trustees have found themselves. There are one and a dozen different causes for unusual financial difficulties in the conduct of hospitals. In the construction of the hospital, too many beds have been allocated in wards and too few in private or semiprivate rooms. It has been said that not more than 50 per cent of the hospital's accommodations should be devoted to ward beds and that 30 and 20 per cent of the space remaining should be devoted respectively to the care of semiprivate and private patients.

When ward bed ratios are too high, deficits naturally mount. And just as often, one may discover that while the foregoing ratios of five, three and two may be closely approximated, yet the percentage of occupancy in the higher priced services may be low, and hence out of proportion to that representing the occupancy of ward beds. In one group of hospitals comprising 2,500 beds, it was found that 26 per cent of the facilities of this group comprised private and semiprivate beds, while 62 per cent were in general wards. Yet with such a disproportion in the physical arrangement, the dilemma of a falling hospital income was further complicated by the fact that but 23 per cent of the total hospital days were devoted to the treatment of semiprivate and private patients while 68 per cent of all days' service was given to ward patients. When hospital incomes, therefore, are low, attention should first of all be paid to the distribution of institutional beds.

Reasons for Lack of Patronage

The accommodations at hand may be of such a nature as to repel rather than to invite patronage. Old, odorous, nonfireproof, unattractive surroundings discourage a high percentage of occupancy. Ample beds may be available but they may be improperly priced. Of little service to the community is a ward bed that is not within the financial reach of the man or woman needing it. It would be far better to realize smaller per capita profits and to give a greater number of hospital days of service rather than to allow beds to stand idle because their cost and the financial capabilities of the patient were disproportionate. The hospital visiting staff may not be sending a sufficient number of patients to the institution for treatment. Perhaps this is one of the most common reasons for low occupancy figures. The remedy for such a situation is obvious, and points usually to the necessity of board action from the standpoint of impressing physicians with the existence of an economic as well as a scientific obligation to the institution they serve.

There may be too many beds for the community need. This computation is perhaps much more simple than one that concerns itself with the economic and medical division of the group as a whole. Most communities feel satisfied if they possess one bed for every 200 persons. It may be that the reputation of the institution in the community has suffered because of unfortunate staff or administrative errors in the past. This difficulty is of necessity one that requires much patience and time to remedy and yet it is one that can be obviated if proper methods are employed. Administrative errors along business lines, lack of proper publicity and, finally, staff work that is neither modern nor efficient, all may be deterring influences toward creating income and diminishing cost.

Occupancy Figures Vary

Not infrequently one finds that occupancy figures in various departments vary greatly and that one or more such divisions serve to keep at a low figure the gross number of hospital days of service. Maternity departments often show great variance as to the number of beds occupied at any given time. It has been said that about 12 per cent of the beds of the hospital should be assigned to obstetrical patients. Even a ratio as definite as this, however, may vary quite a little because of local conditions.

It has been estimated that there should be one medical bed for every thousand persons in the community. Beds for this group usually approximate 26 per cent of the whole hospital bed equipment. Yet even in institutions in which one out of every four beds is assigned to medical patients, as low as 18 per cent of the total hospital bed days may be devoted to the care of those who are being treated for nonsurgical conditions. In most community hospitals there is a tendency to slight medical work in favor of surgical work. Hence, it is not surprising to note that there is usually one hospital bed for every 650 persons and that as high as 41 per cent of the hospital's total bed capacity is occupied by those who require surgical attention. Such a lack of balance at times discourages the use of the hospital by

physicians who are engaged in general practice because of the fact that a relatively smaller number of surgeons require this type of accommodation for their patients. To be certain, medical patients are in many ways much less spectacular than those who require surgery. In addition, physicians appear to favor as a specialty, surgical rather than medical work.

Percentages of occupancy, as set forth by the hospitals in the field, are misleading because of the great variance in the methods employed in the computation of such figures. Too rarely does the gross percentage of occupancy of all hospital beds exceed 75 per cent. To be sure, many hundreds of institutions show much higher averages, and an equal number undoubtedly show much lower averages. In a group of community institutions the following percentages represented the occupancy of the various services classified as to their economic rather than as to their scientific status: Seventy-three per cent of 2,500 beds were occupied every day in the year; 63 per cent of the private and 82 per cent of the semiprivate beds were occupied all the time; 76 per cent of both semiprivate and private facilities were in use continuously; 72 per cent of the ward beds were occupied throughout the year. The occupancy, however, of maternity beds was considerably lower, 54 per cent.

Ratio of Free and Pay Patients

It may be seen in this group of institutions that the private and semiprivate facilities were occupied a greater percentage of the time than the ward beds. This fact is interesting from the standpoint of a situation in which the provisions for those who were able to pay were insufficient and in which the number of free beds was excessive. It is reasonable, therefore, to conclude that a low bed occupancy particularly in departments from which the hospital expects to receive a profitable return will reflect itself in an increase in the annual net loss sustained by the hospital. A high degree of occupancy of part-pay and free ward beds is likely to produce the same effect.

It is impossible to lay down any definite rule as to the economic division of beds in hospitals generally. On the other hand, it may be said that much can be learned from the experience of institutions in the field. Such statistics rightfully represent a cross section of the whole community situation.

What percentage of total hospital days of care should be free? Is there any yardstick by which free service requirements may be measured? The following experience in twenty-three hospitals in a metropolitan district in the East which participate in a community chest and receive state aid as well, is of interest:

Private and semiprivate days	319,152
Ward days, full-pay	157,215
Ward days, part-pay	229,782
Ward days, free	284,022
Total	991,171
Expense of ward care	$2,573,072.39
Per diem cost	3.83
Receipts from ward patients, full-pay	442,245.67
Receipts from ward patients, part-pay	220,047.44
Average per diem, ward patients, full-pay	2.81
Average per diem, ward patients, part-pay	.87

In these institutions the charge for ward service is usually $3 a day. It will be noted that patients designated as full-pay, return $2.81 to the hospital. It is interesting at this point to note the variance in the interpretation of the term, "full-pay" ward patient. In certain instances a full-pay ward patient is considered to be one who meets the complete expense necessary for his care in the hospital. In others a patient is considered as "full-pay" if he fully meets the charge the hospital has set on the bed he occupies. It is of interest to note in this particular group, also, that an average of only eighty-seven cents was paid a day by each patient designated as part-pay. A simple computation will show that 158,591 days' care was given free to part-pay patients.

Percentage of Free Care too High

In this group of institutions, moreover, 43 per cent of the total number of days' care provided was totally free. It is a questionable practice which permits so-called full-pay ward patients to secure services at a rate that results in a distinct loss to the institution. There must be several of this group who are able to meet fully the cost of such care. Moreover, the fact that 43 per cent of the total days of hospital service were entirely free raises a question as to the necessity for such free service.

In another series of hospitals representing 151 institutions, most of which receive state aid, 50 per cent of the total number of hospital days were free. Now, it does not appear unreasonable to suppose that in but few localities are there to be found situations in which one out of every two persons requiring hospital care is unable to pay anything for this service. It would seem, therefore, in community hospitals in which percentages of free care approach or exceed 50 per cent,

that careful social service check-up should be instituted to prevent the voluntary pauperization of patients. It may be said with some degree of positiveness that this percentage of total free care should more nearly approximate 35 than 50. When such a high percentage of free care is permitted, a contributing public has a definite right to question the efficiency of an administration which is so apparently ineffectual in accurately allocating the individuals requiring hospital service to the groups mentioned earlier in this article.

Need for Uniform Method of Charging

In some state-owned institutions, the percentage of free care is even higher, approaching as it does in some instances 65 or 70 per cent. Perhaps one reason for the existence of such a startling percentage as this might be found in the fact that state-owned hospitals receive bulk appropriations, while state-aided hospitals expect and receive per capita allowances for free days of service rendered. The apparent contradictory import of this statement should be further explained by the fact that the validity of free days claimed is always checked by auditors from the state department before certification of payment therefor is made. Moreover, there is no uniformity in either the regular or special charges of hospitals generally. Hence, it would seem that in communities where more than one institution is to be found an effort should be made to standardize hospital rate cards. In the business world, chaos would reign if standard manufactured articles, automobiles and other type equipment were to be variously priced in the same community. In the hospital field, such a policy creates false and harmful competition and a misunderstanding of motives on the part of the public. It may be said that ward rates are frequently in need of revision upwards and that it would be just as proper and easy to reduce bills based on a $4 a day rate in case of necessity as it is to rebate a charge when the standard rate is $3 a day.

An interesting variance is noted in regard to the policy of charging for the newborn. In institutions which do charge for the care of the newborn babies, this rate varies from fifty to seventy-five cents a day, depending upon the type of room occupied by the mother. In other hospitals, and this policy is not without its advantages, the price of the room of the mother includes that of the infant. In a succeeding article the computation of net loss per capita per diem will be discussed and an attempt will be made to point to ways and means of reducing costs and increasing income without harmfully affecting the scientific service of the hospital to the community.

Shall the Hospital Do Charity Work for the State Industrial Groups?

In an attempt to get the industrial insurance commissions of Washington and Oregon to increase the rates they pay for state patients in the hospitals to a level at least commensurate with the average cost of service, a resolution to this effect was passed at the meeting of the Western Hospital Association, Portland, Ore.

In the discussion that preceded the drafting of the resolution, it was pointed out that ten years ago the state industrial department of Washington was paying $2.57 a day or $18 a week for the hospitalization of state patients, less $2 a week for medicines and special dressings which were deducted, providing the patient had had medicine and special dressings to that amount. This left the hospital $16 a week. The hospital rates are still the same as they were ten years ago. But, it was pointed out, the pay roll is not the same as it was ten years ago.

C. J. Cummings, superintendent, Tacoma General Hospital, Tacoma, Wash., said his hospital had not taken such cases for three years and would not take them for three years more, if conditions remain as they are.

The other representatives agreed that it was impossible for any hospital to give up-to-date service for $2.57 a day and that the state commissions should be urged to increase the rate at least to cover cost. All deplored the fact that the hospitals were expected to do charity work for the state.

Examples of other states were cited, chiefly Ohio and Oklahoma. Ohio pays $7 a day for its hospitalization cases and Oklahoma pays $5.

The Problem of Hospital Care for Foreigners in France

The problem that France is now facing in providing hospital care for the strangers within its borders is the subject of an article in the *Journal of the American Medical Association.*

In Paris alone last year, 22,223 foreigners were given hospital care and treatment, 337,706 days of hospitalization. The cost to the assistance publique was $22,000. Of this amount only an exceedingly small portion was returned by the home countries of the foreigners. Theoretically, the treatment of foreigners without funds is regarded in every country as a matter of reciprocity. But this conception results disastrously for France, which has only 200,000 of its nationals living in foreign countries.

As a remedy for this condition, it is suggested that foreigners should establish more hospitals of their own. The patients themselves would be pleased to have about them nurses of their own nationality, or at least such as speak their language. There is already in Paris a hospital for the citizens of northern Africa that is giving a good account of itself.

It is further suggested that France take steps to improve the sanitary control at the frontiers, so that immigrants only of sound body and mind shall be admitted. If a recently proposed bill is passed, the government will require that foreigners entering the country furnish a medical certificate. This certificate would be required before an identification card could be secured. Likewise the employer would be compelled to demand it.

Editorials

A Pledge for Nurses

THE temple is the progenitor of the hospital. The physician is the descendant of the disciples of Æsculapius and the nurse takes her lineage from Panacea and Hygeia, his daughters. The professions of medicine and nursing are still imbued by the sacred spirit of their forbears. This spirit is the creator of enthusiasm in our work and the stimulant of self-sacrifice therein. Its perpetuation and development is therefore of value to patient, physician and nurse alike. The age-old Oath of Hippocrates and the Nightingale Pledge have inspired thousands, but too much cannot be done to keep alive the realization of the sacredness of service.

To this end, there has been prepared, after consultation with the leaders in the fields of medicine, nursing and hospitalization, "The Dedication of the Nurse," which is published in this issue. Its comprehensive simplicity and purity of purpose will, it is hoped, commend it to the profession of nursing and hospital service. It seems to be appropriate for adoption by schools of nursing, particularly in connection with the annual graduation exercises.

The Coming Year

THE MODERN HOSPITAL takes this occasion to extend to the hospital field its best wishes for a year of continued prosperity and advancement. Each succeeding year has seen the hospitals of the United States improved but none has witnessed such material advances as that just closed.

There has been an increase and betterment in the nation's hospital facilities and the average patient will receive during this year better treatment and care than ever before in the world's history. There has been an augmentation in the number and character of hospital plants. The average hospital stay has been reduced and sufferers from disease and injury are being returned to usefulness and comfort more quickly than ever before. This has resulted from improved professional methods and an increasing realization that hospitals must be fitted to patients and not patients to hospitals.

The wider introduction of social service is decreasing hospital readmissions, and advances in nursing and dietetics have served to render cures more permanent. Hospitals are now coming to realize that while they may not be health centers in name, they are so in fact and that they serve to reduce the tuberculosis and cardiac disease mortality rates. By teaching patients how to live, useful life is being prolonged by hospitals and the remediation of bad oral conditions by hospital dental clinics has added tremendously to the movement of the prophylaxis of disease.

That the year which we are now entering will see the expansion of the important function of health building, there can be no doubt. The cooperation between those who build, those who outfit and those who operate hospitals is bound to add materially to the sum of human welfare, the strength of the race and the betterment of the entire nation.

Discouraging Straws in the Political Wind

IF THE tendencies of the time are in any measure indicated by the repeated occurrence in widespread locations of political interference in the administrative functionings of health and educational departments, the optimist in social and governmental matters must be given many bad moments.

Time was when the astute politician, as an evidence of his keen insight into what was good for the "party," decided that hospitals and schools were likely to prove political boomerangs if involved in his maneuverings. He contented himself with enjoying the limelight of commencement stages and of handing out diplomas to awe inspired high school and college students.

But a drive for centralization of administration and purchasing has quietly progressed in many of our states. The state owned or controlled schools and hospitals have been included in the net. The hue and cry of efficiency and economy have been raised successfully. The gullible public has been confused by what in many instances has been a successfully camouflaged campaign to secure for the party in power complete control over the expenditure of state money and incidentally, in the guise of economy by means of bulk buying, it is suspected to reap the perquisites in pelf and power attendant thereon.

Laudable as is centralization in the administration of hospitals, unless it is quickly followed by a degree of decentralization morale is lowered and efficiency disappears. Wise legislators in years past have realized the importance of local support for state owned or controlled hospitals.

The Dedication of the Nurse

Recognizing the sacredness of the healing and remedial art and the devotion which its practice entails,

I will maintain the purity of my mind and body,

Speaking no evil,

Spreading no gossip,

Abstaining from whatsoever is harmful to patient, physician, associates and self,

Loyally laboring for the sick,

Pointing the way toward the paths of health,

Upbuilding the standards of my profession,

Daily striving for knowledge and wisdom therein,

To the end that alleviation of suffering, cure of disease and useful prolongation of human life may follow.

Because of the conviction that such a community pride was desirable, a local board of trustees usually was found efficiently and unselfishly directing the affairs of such institutions. But when hungry politicians at the state capitol were importuned by friends or others but selfishly interested for contracts to furnish gauze or laundry machinery, potatoes or coal to single or collective institutions, they soon learned that the local board had not only power to act on such matters but also that they were disinclined to listen to flimsily veiled orders from the capitol as to the source of such purchases.

And then there arose a political Moses who with his rod of influence smote the rock of local autonomy and lo! contracts of every variety for the favored few were immediately available. And so there came into existence the central state purchasing bureau with a political director, usually of greater vote getting than merchandising ability, in charge. They were informed that no buying of supplies of any description would be permitted and that all purchasing must be done by the state agent. Requisitions for the multitudinous commodities required by the hospital were trustfully forwarded to the capitol. And anon mysterious boxes and crates began to arrive at local freight offices. Specifications for the goods requested seemed at the very beginning to be comparative strangers to the supplies actually delivered. Picks of gauze mattered not at all, sheets were short and blankets were shoddy. Canned foods bore strange and hitherto unknown brands. The political purchasing agent in the full blush of his newly acquired power was giving practical vent to his long conserved abilities to economize.

But possessing no knowledge as to the needs of the hospitals, understanding not at all the uses to which such a variety of requisitioned supplies were to be put, the agent, to the trained administrator, appeared pathetic in his impotence. And yet neither the superintendent nor the board of trustees could successfully protest for the executive hand "had writ nor all their tears could wash out a word of it."

Central purchasing in the blundering, greedy, self-sufficient hands of the average political appointee represents a weapon of devastating potentialities. Moreover, when appointments of even the minor employees of the state hospitals must be approved by the pen of a governor's secretary, a score or a hundred miles away, the power of the superintendent for good in the elevation and maintenance of institutional morale is materially lessened.

Under such conditions it is but little wonder that state and county owned institutions are so often the subjects of scornful pity to privately conducted hospitals nearby. Nevertheless, if human greed for power and wealth could be excluded, if official blindness or dishonesty represented by the folly of acceding to requests or demands for political favors in purchasing matters could be obviated, the governmental dollar could and would purchase as much hospital service as does that from private pockets.

Simplification

THE mind of man works in a curious way. Whenever he devises a process for accomplishing a given end, he always surrounds it first by a cumbersome, laborious and not infrequently faulty technique. If he is intelligent he is constantly looking for means whereby the technique may be simplified, until finally it has been divested of all useless steps to such a point that it becomes ease itself.

For example, when the Pasteur treatment was first introduced into this country, the rabbit was prepared as for a surgical operation. The skull was trephined, the virus was introduced beneath the dura, and the wound sewed up. When it came to taking out the cord, it was again a very elaborate process during which contamination not infrequently occurred. A trocar and cannula were substituted for the trephine, and when it came to the extraction of the cord it was removed with the simple process of pushing it out with a specially made probe.

In the beginning, the inoculation of a rabbit took half an hour, and the removal of the cord quite as much time. With the simplification of the process, a hundred rabbits could be inoculated and a hundred cords could be removed in a single morning.

Again, when we first began to make tetanus toxin, elaborate means were employed for making the anerobic cultures. Finally, somebody suggested that if the culture medium was boiled and then suddenly cooled, all the air in the flask would be expelled and the culture would then grow readily.

The point about this story is that people who really know their work and have an interest in it are always trying to make it more simple. This applies quite as much to the filing system in the hospital office as to the aseptic technique in the operating room. People who are not intelligent and are therefore mere routinists, as well as people who wish to magnify their position, adhere to elaborate, cumbersome methods that might

well be simplified by the application of common sense. If such a one cannot be reformed, the only thing that the hospital can do is to give him the opportunity of displaying his talents somewhere else.

The hospital that reduces all of its operations, from the matter of purchasing to the most highly specialized procedures, to the least common denominator, is the one that does the best work. Best of all, this work is accomplished with the minimum of effort, the minimum of expense and the maximum of result.

What Is a Hospital Bed?

THE construction of hospital beds is fast approaching a standard of efficiency and comfort that simplifies the purchase of these necessary articles of furniture and guarantees the greatest amount of ease and comfort to each patient.

But the term "hospital bed" has come to signify more than a mere piece of useful and necessary institutional equipment. It is employed in a somewhat colloquial sense as a unit of capacity in the same degree as a meter and a gram are accepted units of distance and weight. But while the construction of the beds may be uniform, no greater variance can be imagined than that which exists in hospital beds when considered in the broader sense of the term. For beds consist not alone of steel and wire and they require not only mattresses and pillows and linen to make them useful. A hospital bed in one institution may imply the existence of hardly more than these physical necessities. Such is a purely custodial hospital. In the modern institution of to-day, however, a hospital bed must command trained nursing and medical personnel, x-ray, clinical and physical therapy laboratories, diet kitchens, operating rooms, mechanical plants and other facilities.

To state that an area possesses too few or too many beds implies much more than a mere comparison between population statistics and the number of pieces of a certain type of hospital furniture at hand. There may be available one bed for every one hundred in population and still the community may be grossly underhospitalized. A bed that cannot command all these necessary, complicated and costly types of service is a mere piece of furniture. Occupancy statistics and hospital service requirements must be interpreted only on a basis of the type and amount of specialty service available rather than on the numerical calculation of tables, chairs or beds in the hospital.

Talking It Over

KNOWING neither poverty nor affluence, sex nor color, Christian or pagan, extending its beneficence to rich and poor alike, the hospital world begins another year of service to the body and mind of man. Its functions disregard the boundaries of nations and tongues, operating with equal fidelity on mountain top and in the valley, upon dry land and on the moving prairies of the sea. How many countless thousands have combated whatever is harmful to man's body since the days of xenodochia and France's first hospital of Lyons built in 542 during the reign of Childebert. How many of these valiant workers have perished at their task; how many have continued their labors despite infirmity and age. The hospitalers of the past have set a standard of loyalty and devotion that we moderns cannot surpass and can scarcely equal, yet may our first 1930 resolution be to approach the spiritual standard that animated our professional forbears.

* * *

IN OUR intense desire to help the mentally, physically and financially broken, there is always the temptation to give more than we have, with the result that service suffers and financial worries multiply. This spirit is taken advantage of by the unscrupulous, and hospital and dispensary abuse increases. Let us resolve to live within our budget and as a means of so doing to investigate carefully the economic status of applicants for hospital or dispensary relief. In other words, let us apply our charity as accurately as our measures of clinical relief. Membership in the local credit men's association and the use of its facilities will save many a dollar which will permit charity where charity is needed.

* * *

IN THIS age of machinery, there is always the danger that the profession of hospital medicine shall become a mechanized craft rather than an art of skill. The laboratory supplies crutches to be used when art limps but many times they are relied upon when the five senses would have accomplished more, and less expensively. A careful study will show that many an x-ray plate is used and many other laboratory procedures invoked which a little clinical industry would have prevented. If laboratory operations are applied as appropriately as surgical operations substantial savings will result.

* * *

NOT infrequently the high cost of living is the cost of high living. Similarly, the high cost of living in a hospital is due to high living. Pride and a desire that sick loved ones shall have only the best leads to extravagance for which patients too frequently blame the hospital. Let us resolve that hospital accommodations shall fit pocketbooks.

* * *

AFTER all, shouldn't hospital charges be kept as low as is compatible with economic operation? Is it not possible by accurate business methods to make them proportionate to the service the patient receives? Is it ethical to make one patient pay for another without their mutual knowledge? If we do not allow ourselves to be extravagant in our charity and do not permit patients to be extravagant at the hospital's expense, can we not discharge our community function with greater efficiency?

DR. JOHN DILLON SPELMAN, superintendent of Montefiore Hospital, Pittsburgh, died suddenly December 17 in Pittsburgh. Doctor Spelman was forty years of age and was born in Cincinnati.

After his graduation in 1911 from the school of medicine, University of Cincinnati, Doctor Spelman engaged in practice for several years and later entered hospital administration, first as assistant to Dr. A. C. Bachmeyer at the Cincinnati General Hospital, and later as assistant to Frank E. Chapman, director of Mount Sinai Hospital, Cleveland. In 1922 Doctor Spelman became director of Touro Infirmary, New Orleans, where he remained until September, 1927, when he assumed the superintendency of Montefiore Hospital, Pittsburgh.

Doctor Spelman for several years had been a member of the nominating committee of the American Hospital Association and was prominent in association affairs, at one time being president of the Southern Hospital Association. He was a valued member of the editorial board of THE MODERN HOSPITAL.

A TRIBUTE TO DOCTOR SPELMAN

By W. C. Rucker, M.D., New Orleans

THE hospital world will sadly miss John Spelman. He made many friends, friends in every walk of life, and people who saw him but once gave him their hearts and their confidences. So did the communities in which he dwelt and labored, where he diligently led the people to a happier and healthier life.

He was still young—just forty—but he was a leader in hospital medicine and his work at Touro and at Montefiore has set a standard, and we of the hospital field, what can we do but grieve with Doctor Spelman's family to whom our condolences go forth, and ever set our footsteps upward toward that high ideal which he exemplified.

Abstracts of Hospital Literature From Foreign Countries

A Department Conducted by E. M. BLUESTONE, M.D.
Medical Director, Montefiore Hospital, New York City

I. "THE DIETETIC SERVICE IN HOSPITALS," the Städtischen Krankenhaus-Sachsenhausen (Frankfort am Main), J. Wirth, Medical Director, and F. Berger, Assistant Medical Director

IN THIS article in *Zeitschrift Für Das Gesamte Krankenhauswesen*, Berlin, there appears a detailed statement of the diets that are provided for the various clinical divisions in this hospital. In recent years a permanent committee consisting of medical men, administrative officers and J. Wirth, medical director, and F. Berger, assistant medical director, the Städtischen Krankenhaus-Sachsenhausen, drew up a scheme that would harmonize the economic interests of a big hospital (with an average daily census of almost 2,000 patients) with the prescriptions for diets requested by the various clinical departments, which number eleven.

It is argued that clinics must have full scope in dietetic prescriptions but the sums required for the fulfillment of these demands are not permitted to exceed 1.59 marks. This sum is taken as the daily allowance for the food service of the ward patient. Some of the principles of the food scheme described are: that food must be adequately diversified; that the best of materials must be employed; that the menu must never be permitted to become monotonous and that advantage should be taken of foods in season. During their stay in the hospital, ward patients must learn through experience what they may eat after discharge, as well as the low cost of the food prescribed for them.

The Städtischen Krankenhaus-Sachsenhausen is composed of eleven clinics. Besides the private and ward patients, the following groups must be provided with food: eighty-seven physicians, 550 nurses and 181 orderlies. This hospital believes in the centralization of the food service, which means that all ward patients, physicians, nurses and employees are fed from one central kitchen. There is no separate diet kitchen. Lack of room in the main kitchen has made it necessary to establish a similar kitchen in the private section which provides 100 patients with food. Pantries have been established in the various clinical departments for light cooking which should not be done elsewhere.

Special diets, as well as the regular house diets, are prepared in the main kitchen. This service is controlled by a permanent committee composed of the director of the hospital, who is a physician, several of the members of his staff, a medical representative of one of the clinical departments, a dietitian—"a diet nurse"—who is in charge of the special kitchen, and the chef. The diet is prescribed by the physician and requisitioned by the head nurse of the ward. The various diets are enumerated and their composition is given in detail in the text of the article.

In the case of a patient who cannot eat the varieties of the diet prescribed, the attending physician may, for diagnostic and therapeutic reasons, prescribe what is called "Sonderkost"—extra diet. The most frequent conditions in which extra diet is requested are diabetes, goiter, gout, obesity and pernicious anemia. Occasionally new kinds of test diets are wanted and experimental work is often done with various kinds of raw food. It is pointed out that 3½ per cent of the food service are dishes of the so-called "Sonderkost" and great interest is shown in this particular phase of hospital service.

II. "STANDARDIZATION IN THE GERMAN HOSPITAL"

At the exhibition on the standardization of the German Hospital at Convention Hall in Atlantic City during the sessions of the International Congress last June there was exhibited a number of appliances which had been approved by the committee on standards for hospitals in Germany called "Fanok" (abbreviation for Fachnormenausschuss Krankenhaus). Fanok is a department of the German standardization system for industrial articles which they refer to as "Din," an abbreviation for Deutsche Industrie Normung.

The *Zeitschrift* gives a full account of the final standardization by "Fanok." These accounts are revised semiannually. The *Zeitschrift* gives as usual the different phases of the procedings in regard to standardization.

In the standard bulletins that "Fanok" published to July 1 the articles dealt with are hospital furniture, linens and clothing, disinfecting and cleaning apparatus, kitchen supplies, surgical dressings, ambulances, record forms, staff room furniture, hospital barracks and surgical instruments. Copies of all the "Fanok" publications may be obtained at the Beuth-Verlag, Berlin, S. 14, Dresdenerstr. 97.

III. "THE SANITARY CONDITIONS OF THE GERMAN PEOPLE IN 1927," Prof. A. Gottstein, Berlin

Immediately before the war the number of hospital beds in proportion to the population was 4.3 to 1,000. In 1926 there was a notable increase in beds. The ratio was 5.5 to 1,000. These figures are quoted in *Zeitschrift Für Das Gesamte Krankenhauswesen.*

In 1913 the average number of nursing days was 27.6. In the year 1926 it was 29.1. Notwithstanding the increasing number of hospital beds, the article points out that there is a shortage everywhere.

IV. "BETTER LIGHTING AT LOWER COST," E. Weisse, Engineer, Leipzig

Six electric bulbs of twenty-five watts each use together 150 watts and diffuse a quantity of light which amounts to 1,500 units. A single lamp of 100 watts will produce the same unit quantity of illumination with 50 per cent less current. Instead of using many feeble lamps, the use of one strong bulb is more economic in current. The pear shaped lamps—the so-called long wire lamps —give less light for the same amount of current than the modern circular wire lamps. With the aging of the lamp metal precipitation takes place inside the bulb which often leads to a loss of one-third or more of illumination. The author therefore recommends that old bulbs should be replaced by new ones. Most of the factories recognize 1,000 burning hours as an index of the life of a lamp. On every lamp appears the voltage calculated for practical use. If the tension of the current is 110 volts, the use of a lamp for 115 volts gives 20 per cent less illumination than is procured when the lamp is connected up with a current of 115 volts. The author goes on to describe the illumination of a room from the standpoint of the local intensification of light as, for example, the illumination of a book on the table. The "beloved" silk lamp shades are undesirable because they absorb a great deal of light.

V. "THE SALE KIOSK IN THE HOSPITAL," Winter, Inspector, Ludwigshafen am Rhein

This article in *Zeitschrift* describes a shop in the hospital where patients, visitors and personnel can buy fruits, confectioneries, delicacies, beer, wine and cigarettes. The shop is under the management of a private agent whose prices are fixed at a low level. A footnote to this article sounds a warning. Such shops should be under the direct control of the hospital and not under the control of a private merchant whose commercial interests often run contrary to the interests of the patients.

VI. "PUBLICATIONS OF THE GERMAN ASSOCIATION FOR SOCIAL SERVICE IN HOSPITALS AND FOR THE EDUCATION OF CHILDREN IN HOSPITALS," Hildergard v. Gierke, Superintendent, Pestalozzi-Fröbelhause, Berlin

The author acknowledges the close relationship between physical and spiritual processes. She continues with a discussion of the influences of this relationship on healing. She maintains that interdependence between body and soul is in reverse ratio with the education of the individual. This is the opening argument for the educational effort in behalf of sick children in hospitals. It is true in the case of children who are compelled to spend months and sometimes years in hospitals.

Occupation is an indispensable factor in the treatment of convalescent and chronic sick children. This is taken to be a sure cure against homesickness and physical pain, as well as mental suffering. It is held to improve self-confidence and to promote companionship. Introspection is lessened and nervous symptoms disappear.

The author gives a number of suggestions for improving the educational work for sick children. She pleads for the employment of female horticulturists in suitable places and stresses the desirability of the psychological and pedagogical training of nurses, especially of charge nurses. She quotes the experience of the nursing school of the University Clinic in Jena, which prepares pupil nurses by a practical course of two months in the children's wards given by a teacher experienced in educational work.

VII. "THE HOSPITAL-SANATORIUM AND THE ISOLATION CENTER FOR INCURABLE TUBERCULOSIS IN FRANCE," M. Marcel Gangery, Nancy

This article in *L'Assistance Hospitaliere* gives a survey of the antituberculosis campaign in France, explaining the work done by the government. The dispensaries and sanatoriums are left to the government while the organization and administration of the preventive institutions and the hospitals are mostly achieved by private enterprise. In the hospitals every variety of tuberculosis is admitted, the curable as well as the incurable. Because so large a mortality was recorded eventually, this policy earned for the hospitals an undesirable reputation, and other means were studied for the care of the incurable. One result was the establishment of isolation departments in general hospitals, in addition to isolation centers.

The hospital for tuberculosis must be a centralized institution for treatment and research. It should be complementary to the sanatorium which does not require the extensive installation of a surgical department or of laboratories. The author argues that the specialized department should be a center for the observation and treatment of all those cases presenting difficulty in diagnosis or requiring specific technical therapy. Severe cases should be prepared there for sanatorium care, while on the other hand those cared for in sanatoriums whose condition becomes aggravated, should be removed to the hospital.

VIII. "TECHNICAL AND ADMINISTRATIVE ORGANIZATION OF THE HOSPITALS IN DENMARK," L. Mayer, M.D., Professor Agrégé, Brussels

This article gives a description of the construction and management of several of the hospitals in Copenhagen. There are in the metropolis of Denmark 5,457 beds for a population of 700,000 inhabitants. In addition almost 2,000 beds are provided for the insane, the tuberculous and other types of cases. Most of the hospitals have been built in recent times, are of modern construction and are well equipped. A sample of fine building is the Gentofte Hospital which was opened two years ago.

With the exception of the University Hospital, which is managed by the state, the others are municipal institutions. At the head of the latter group is a general inspector, Mr. Nielson, assisted by a medical counsel of four members who are chiefs of medical departments. A general committee consisting of the mayor, acting as chairman, the alderman of the public health service, the general inspector of the hospitals and all medical chiefs has been set up for discussing the general aspects of hospital policy and the annual budget. The medical chief supervises his department, which consists in the care of the sick and in the control of scientific work. The article is illustrated by exterior and interior photographs.

IX. "HOSPITAL ACCOMMODATION IN BELGIAN PRISONS," M. van de Woestyne, Assistant Manager of the Department of Justice, Brussels

As a rule, sick prisoners are nursed in their cells by their jailers. Those who require surgical care are transferred to the prison of St. Gilles, Brussels, or to the one at Ghent, both of which are equipped with operating theaters.

For mental diseases and for tuberculosis the state has taken more radical measures. Prisoners who suffer from mental disorders are subjected to anthropological examination and are classified according to their physical, intellectual and moral status. For this purpose ten of the prisons are provided with anthropological laboratories. In four prisons there are psychiatric departments. Prisoners who suffer from constitutional disorders, and psychopaths, are transferred from the prisons to special institutions. Another result of the anthropological service has been the realization of a prison sanatorium for tuberculous prisoners in the neighborhood of the prison, for epileptics and feeble-minded at Merxplas, situated in the midst of fir woods. Most of the tuberculous are chronic patients who are treated in the open air and subjected to occupational therapy.

X. "THE HOSPITAL OF ST. PIERRE AT BRUSSELS THROUGHOUT THE CENTURIES," M. Paul Bonenfant, Brussels

After having described the origin of the hospital in a preceding article which shows that in the twelfth century a leper asylum stood on the hospital ground, the author continues by telling of events that have occurred since the French Revolution at the end of the eighteenth century. At that time the hospital of St. Pierre was the principal hospital of the town. It was called "Grand Hospice Civil" as opposed to the Hospital St. Jean that went by the name of "Petit Hospice Civil." Hospital St. Pierre gradually enlarged, old buildings were remodeled and new ones

erected. In the middle of the nineteenth century the number of beds in both hospitals was almost the same. Then the sick poor were distributed over the two municipal hospitals according to the quarters in which they lived. After that period specialized medical departments gradually developed in each of the hospitals. In 1928 St. Pierre had ten medical divisions and a total of 818 beds. A total of 100,000 consultations was recorded in the out-patient department.

As the years went by the changed ideas in medical and sanitary science gradually made both hospitals obsolete from the standpoint of construction. The legacy of the Brussels philanthropist, Georges Brugmann, would have enabled the authorities to build a new hospital on the outskirts of the town. The faculty of medicine urged a hospital of reduced capacity in the center of the town close to other medical institutions but the municipal finances did not reach far enough to meet this demand. At this time the Rockefeller Foundation offered its help and the financial difficulties were overcome. The old Hospital St. Pierre has since been demolished and new buildings have arisen on the site. The buildings are used partly for clinical purposes and partly for the medical school.

XI. "HOSPITALS IN AMSTERDAM: THE DUTCH JEWISH HOSPITAL AND THE BURGER ZIEKENHUIS," J. L. C. Wortman, M.D., Hilversum

The poverty among the Jewish population led the Jewish community to establish a hospital long before hospitals were established by the Catholic population. In the earliest days the hospital served only for the poorest who had no shelter while they were sick, according to an article in Het Ziekenhuiswesen, Holland. In the beginning of the nineteenth century it is estimated that 12,000 out of a total of 20,000 Jews in the city were classified as poor. The Jewish population now amounts to nearly 100,000.

Since 1833 the hospital has been under the same administration as the almshouse, which stood on a large plot between two streets. This double institution grew and eventually mental pavilions and a prayer house were added. In 1920 when another mental hospital was constructed nearby, the mental division was converted for hospital purposes, thus providing a capacity of 250 beds. The old institution was remodeled and a nurses' home was added, thus converting the plant into a modern institution. Throughout the history of this hospital its poor law character has been maintained and no private patients are admitted.

The Burger Ziekenhuis came into being for the benefit of the patient of moderate means. Opened in 1891, it was the first hospital in Amsterdam to be established on sound, hygienic and technical principles. It is built on the pavilion plan and covers a large site, although the capacity is only 125. A beautiful garden, spacious private rooms and wards, pavilions for infectious diseases and for the mentally ill, a separate laboratory department and an operating pavilion are the characteristic features of this hospital, which has a splendid reputation.

XII. "THE BAKERY OF THE HOSPITAL," L. Hes, Administrator of the Jewish Mental Hospital, Apeldoorn

The author makes a strong plea for the hospital bakery, placing it on a basis of equal importance with the maintenance department of the hospital. He holds it to be technically uncomplicated, administratively simple and easily controlled from the standpoint of accounts. The hospital bakery takes into account all of the requirements of modern hygiene and modern economy. A better control is obtained over quality, weight, recipes, size and time of delivery. The bakery of the Jewish Mental Hospital, a country institution, has been successful in the six years of its operation. Financially it has been a saving to the hospital. Patient labor is employed thus bringing the costs to a still lower level.

XIII. "THE NEW NEUROLOGICAL CLINIC IN AMSTERDAM"

The development of this clinic received its impetus when Professor Brower declined an appointment as professor to the Johns Hopkins University, Baltimore. Because of his desire to remain in Holland, the municipal authorities decided to comply with his request for a new clinic. One of the old pavilions in the Wilhelmina Gasthuis was remodeled. The author says no stone was left unturned to modernize and complete the new institution in accordance with Professor Brower's plans. The clinic consists of three parts: a research department, a surgery and the wards. The research department is provided with laboratories and every modern apparatus which includes a cinematograph, electrocardiograph, and the electric apparatus of Doctor Bourgignon. The surgery is conducted by a physician who spent two years with Harvey Cushing in Boston. The wards are of modern construction, with plenty of veranda space, electric light signal systems, radio musical instruments and other diversions. The wards and private rooms have a capacity of 125.

YOUR EVERYDAY PROBLEMS

A department devoted to the informal discussion of problems arising in the everyday life of the hospital superintendent.

[No attempt has been made to offer final conclusions relative to the questions considered in this department. THE MODERN HOSPITAL will gladly welcome further comment by its readers on any of these problems, or the presentation of other queries for discussion in later issues.—Editor.]

Should the Hospital Employ as Laboratory Chief a Doctor Guilty of Unethical Practices?

The director of a hospital laboratory in the East has had as his assistant a well trained physician who had previously associated himself in the practice of medicine with one whose ethics and morals were most questionable. The laboratory director having become ill, THE MODERN HOSPITAL is asked to make a statement relative to the wisdom of placing this assistant, even though temporarily, in charge of the laboratory. The question naturally arises as to why a physician with any taint upon his professional reputation should be employed even as an assistant director of a laboratory.

The hospital cannot be too careful in the selection of its personnel or too exacting in placing a premium upon professional and ethical rectitude. This particular physician, being accused of a rather intimate association with an abortionist, could not qualify for a departmental post in a large percentage of hospitals in the United States. His scientific skill might be of the highest, but these qualifications would be entirely overbalanced by his past departure from the paths of professional uprightness. No physician of training and intelligence ever can be excused for persisting in an illegal and unethical practice. It is the understanding of THE MODERN HOSPITAL that this physician did so. The fact that he has disavowed all past irregularities does not appear to make him eligible for any departmental or staff position in an ethical, well organized hospital.

Should Gynecologic Cases Be Assigned to the Surgeon?

This question arose in an institution of 300 beds in which the gynecologic and obstetric services have recently been reorganized. It emanated from a recently appointed obstetrician who, upon assuming his duties, found that while he was expected and permitted to deliver patients, he was not allowed to perform gynecologic repairs or intra-abdominal pelvic operations.

The difficulty experienced by this physician is in no way unique. In the course of departmentalizing the work of the hospital staff, the surgeon often objects to relinquishing any type of work that has hitherto been denominated as belonging to the general surgical department. The surgeon, with some justice, complains that so rapidly have specialties developed within his own field that soon there will be no part of the human body left upon which he may justly perform needed operations. Orthopedic, urologic, laryngologic and gynecologic specialties have arisen so rapidly that the surgeon finds himself excluded from hitherto unrestricted territory.

The relationship between the work of the obstetrician and that of the gynecologist is so close that it is unusual to find a physician devoting his time to the former type of work without his being equally skilled in the work of the latter specialty. Repairs following labor, infections of the pelvic organs with resulting need for surgical interference, are operative steps so closely allied to the practice of obstetrics that it would seem that all such work should be carried out by the same individual. Wherever such a difficulty arises it would seem best, in order to avoid staff friction, to bring about a gradual assumption of the gynecologic work in the hospital by the obstetrician. This may be accomplished by permitting these physicians to bring in private gynecologic cases, by allowing them later a few gynecologic beds and, still later, by assigning all gynecologic surgical procedures to the obstetrician. Nor is this suggestion made with any idea of unfairness to the surgeon. It, however, is certain that greater efficiency will develop in the obstetrical department, if postpuerperal surgery is performed by the same physician who supervised the patient before and during delivery.

Where Should a Two-Day Postpartum Patient, With Appendicitis, Be Treated?

This question recently arose in the admission of a patient to an institution in which gynecological patients are treated in the surgical department. The patient, delivered of a normal child two days previously, complained of pain in the right lower quadrant of the abdomen, with fever and leukocytosis. It was contended that this patient should be admitted to the women's surgical ward. The obstetrician felt that the probability of an error in diagnosis existed and that this patient was suffering, in all likelihood, from some condition referable to her recent delivery and, hence, should be admitted to the obstetrical and gynecological service under his care.

Much difficulty arises from time to time in the assignment of cases within the hospital. The rules of the institution, almost without exception, attempt to define the type of patient treated by the various departmental staffs. But this arrangement must be a flexible one, since it depends entirely upon the diagnostic acumen of the admitting officer.

In some institutions, where no admission ward exists, the only diagnosis upon which assignments can be made is the one which accompanies the patient and which has been made in the home where laboratory facilities are not available. Errors in diagnosis are bound to take place, and, as a result, misassignments will occur. If

these misassignments are made in good faith, friction is not likely to arise. On the other hand, there is sometimes observed a certain willful evasiveness on the part of some physicians when the loss of an interesting case is imminent. For a gynecologist deliberately to lean toward a diagnosis that would eventuate in his securing an interesting patient when in his own mind he is far from certain of the true nature of the pathology present, is unfair if not actually dishonest. For a surgeon to open an abdomen under the guise of performing an appendectomy when the symptoms point toward pelvic disease is likewise equally reprehensible.

In the foregoing case in which assignment was made to the surgical ward, it was found that a pelvic peritonitis following childbirth existed. The retransfer of this patient to the septic room of the maternity department followed. If the diagnosis of appendicitis had been substantiated, the case would have been purely surgical and assignment to that department would have been justified. The former diagnosis, being primary, of course would have determined the place of the patient in the hospital. If the practice of making a primary diagnosis the basis for departmental assignment is followed, little difficulty will be encountered. If good faith and an honest attempt at arriving at a diagnosis are exercised, errors of assignment are excusable. In the course of time, these mistakes will about equalize themselves between the various hospital departments.

What Should Be Done When a Case of Tuberculosis Is Discovered in the Hospital Ward?

There appears to exist in the minds of many something of a phobia relative to the contagiousness of tuberculosis. It is not the purpose of this statement in any way to lessen the wholesome fear which many people rightfully feel for this loathsome disease. On the other hand, tuberculosis is probably not transmitted from the sick to the well with the same ease as is often supposed. Because of this fact, it represents less of a danger to other hospital patients than is at times thought.

Indeed, it is questionable whether a general hospital is justified in refusing to admit under certain conditions tuberculous patients for treatment. Certainly when a case of pulmonary phthisis is admitted to the hospital the institution assumes a certain amount of responsibility in placing this patient properly. If it is an open case and the sputum contains tubercle bacilli, it would be a good practice to remove the patient to well lighted and well ventilated quarters and to sterilize his dishes before they come in contact with those of others. It is neither fair to the patient nor to the hospital to continue to treat over a long period of time a tuberculous patient in a crowded ward with the usual hospital temperature.

As to the question of deliberately taking a patient with tuberculosis into the hospital, it may be said that particularly in city and county institutions there should be provisions for third stage cases. It is not a good practice to transport these very ill patients to distant sanatoriums, nor do they stand any better chance of recovery in such surroundings than they do in a properly constructed ward in an urban hospital. It is the feeling of many administrators that general hospitals should possess the necessary facilities for the care of these patients, particularly those whose condition has followed pneumonia or some other disease for which the hospital has treated the patient.

The theory that tuberculosis is as easily transmissible as measles or even pneumonia, for example, appears to be unfounded. Those who are informed do not feel that the hospital has a right to demand the immediate removal of a case of tuberculosis from the institution when proper contagious precautions cannot be taken at the home in which there may even be children or in which the sanitary surroundings are inferior to those in the institution from which he comes. The time is fast approaching when the figurative consciences of general hospitals will require more generous provisions for diseases of all types than is commonly the case to-day.

What Should Be Done When an Intern With a Patient in Labor Becomes Intoxicated Before Her Delivery?

Under the above circumstances, there are two phases to the problem which was presented by the dean of a medical school in the East who was apparently experiencing some difficulties relative to the discipline of his intern staff. Most institutions issue a schedule which permits interns to be off duty every other night and every other Sunday. This schedule provides for an answering colleague to cover the work of the particular intern in his absence from the hospital. No one can expect that the young physician shall not be given some hours for diversion.

The serious business of caring for the sick surely becomes wearying unless it is interrupted by periods of play. On the other hand, the manner in which interns respond to this privilege, often truly depicts their devotion to duty as well as the degree of scientific interest they have in their work. There are many interns who would not leave the hospital for personal reasons while one of their patients was in labor.

It is possible, under these conditions to separate these young professional men into two groups—those who place the securing of medical information above everything else, and those who are inclined to look upon it as a by-product of self-indulgence. While it is probably wise that no rule should be made that will keep the intern from taking advantage of his regular allotted nights and days off, yet a rule certainly can and should be enforced which permits his absence only when the interests of his patients are protected during this time.

THE MODERN HOSPITAL has expressed itself on many occasions relative to the absolute importance of sobriety among the hospital's intern staff. The odor of intoxicating liquor upon the breath of any intern who comes in contact with the patient or whose services are likely to be unexpectedly required, is an absolute contra-indication to the presence of that doctor in a hospital ward or room. While it is probably impossible for the institution to prevent young doctors from partaking of alcoholic beverages during their allotted time away from the hospital, still there is a degree to which this may be permitted beyond which the good name and scientific reputation of the hospital is harmed. Such an intern as the one described should be forbidden to attend a patient in labor upon his return to the hospital and should be cautioned that a repetition of such an occurrence will likely mean his separation from the institution. The day is long since past when the public will condone any stage of alcoholic exhilaration or intoxication in the physician upon whose judgment and skill the life of the patient may depend. It is the duty of the superintendent of the hospital, by precept and practice, not only to discourage but to prevent unfortunate and morale destroying practices which formerly have harmed the hospitals of our country.

What Are the Privileges and Methods of Selecting the Members of the Courtesy Staff?

While the staff of every hospital is in reality a "courtesy staff," in the sense that the hospital permits physicians to treat patients within its walls, dependent upon certain definite commitments between the hospital and the individual staff member, this term is usually employed to describe nonstaff members who are permitted to use the private facilities of the hospital. There are no standard rules governing either the selection or the privileges of this group. It is customary, however, for definite regulations of some type to be enacted, compliance with which is required before a physician, not on the hospital staff, is allowed to treat his patients within the institution. Usually, the procedure is as follows:

The physician desiring courtesy privileges addresses a letter to the administrative officer in charge of the institution requesting that he be permitted to treat a certain named patient in the private or semiprivate department of the hospital. An application blank is then sent to this physician upon which he is requested to furnish information as to the date and place of his graduation; his specialty, if any; the medical societies to which he belongs; the titles of scientific literary contributions and the names of at least three physicians to whom he refers for information as to his professional qualifications covering the type of case he desires to have admitted to the hospital.

The hospital, upon receiving this application, officially inquires from the references given as to the professional and ethical standing of the applicant. If the information received is satisfactory, written official permission is given for the physician to treat the specifically named patient in the hospital. Each successful applicant should be given a rule book of regulations governing the type of work he seeks permission to perform in the hospital.

The members of the courtesy staff are required to adhere with the same exactness to the hospital's technique as are the physicians representing the visiting staff. The care with which this is done as well as the professional ability displayed will, of course, determine the continuance of the granting of this privilege to the physician. In some hospitals, a permission given for the treatment of one patient is considered a continuing grant of privileges in other instances.

In other institutions where application is made for courtesy privileges in the surgical and obstetrical departments, it is necessary for the applicant to prove his ability to perform this type of work by operating in the presence of an especially appointed representative of the visiting staff. In still others, membership in certain nationally known and recognized surgical and obstetrical organizations is required.

There must be exact and stringent regulations covering the selection of this staff, since slothful practices on the part of its members react almost as unfavorably upon the institution and its board of officers as would such acts on the part of regular visiting physicians.

The privileges of the courtesy staff apply usually only to the treatment of private and semiprivate patients. It would be unfair and unwise to extend the scope of these concessions to include ward patients. The institution, however, must consider the fact that its income is largely affected by the size and activity of its courtesy staff. The type of patients treated by such physicians represents only that form of medical or surgical work that they are amply qualified to perform. It would be unfair for any hospital to permit major surgical work to be performed by a physician who but rarely has an opportunity of perfecting or creating his surgical skill.

General practitioners are much more inclined to be able to do good obstetrics than good surgery. A physician who but infrequently performs tonsillectomies should not be permitted to carry out this type of work in a hospital simply because he is able to furnish the patients.

It may be said, finally that the hospital has just as definite an obligation to protect the community against the pretender to any type of medical skill as it has to furnish advice and scientific care through the medium of its own appointed staff.

In the strictly "open" hospital, the whole staff is, in the final analysis, a courtesy staff. It may be said that here the difficulties in this type of organization are greatly multiplied, in so far as the granting of permission to physicians for the intramural treatment of the sick is concerned.

Should a Hospital Employ a Practical Nurse in Its Dispensary?

It has been proposed by a physician who is employed by an industrial concern in whose dispensary practical nurses are employed, that the hospital might emulate this practice and use other than graduate nurses in its outpatient department. The superintendent of the hospital in which this physician has a staff appointment requests an opinion from THE MODERN HOSPITAL as to the advisability as well as legality of this practice.

The practical nurse has a distinct usefulness in the care of the sick. There are certain types of cases in which the training of the graduate nurse is not fully needed or utilized, and in which a practical nurse is able to fill every need. While the possession of an "R.N." does not always guarantee tact and a high grade of scientific and practical ability, yet, all things being equal, these qualities are much more likely to be found in the possessor of such a degree than in the so-called practical nurse. To be sure, the bulk of hospital nursing is often done by students in training who are not the possessors of such a degree and who are, certainly in the earlier stages of their course, frequently less able to care for the sick than is the practical nurse.

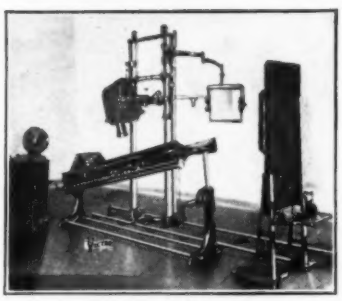
From the standpoint of efficiency, it would seem that no hospital dispensary should consider employing other than graduate nurses. The place of nurse's assistant is often delegated to totally untrained persons. A practical nurse might find a place in a busy dispensary but in reality there exists a wide gap between the professional nurse and the one who has had no course of training.

From a legal standpoint, the hospital might not be more likely to be involved in claims where major surgical treatment had been given, but such claims might be less likely to arise when the nurse has received the greatest amount of training possible. Incidentally, it would seem a bad practice for an industrial concern to employ practical nurses in its dispensary. This is the case, not because it is always certain that inefficient service will be rendered under these circumstances but because of the likelihood of compensation claims arising due to the fact that a high grade of help had not been available.

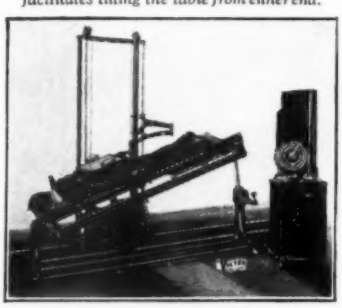
THE MODERN HOSPITAL does not care to go on record as discouraging the use, under proper conditions, of nurses' helpers and of children's nurses, but it does not believe that any responsibility as to the carrying out of physicians' orders should be placed in the hands of those not fully prepared to met the obligations placed upon them.

Radiography Made Safe

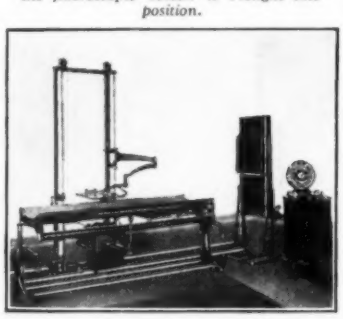
with the Victor Shock-Proof X-Ray Unit



Angular Radiography
A crank and worm-gear arrangement facilitates tilting the table from either end.



Angular Fluoroscopy
Tube head lowered and swung under table, also revolved on its axis to direct the rays upward. Note how conveniently the fluoroscopic screen is brought into position.



Horizontal Fluoroscopy from Under the Table
Observe the extension arm attached for operating the shutters and manipulating the tube head. The fluoroscopic screen and tube head move in unison.

Other features

100% electrically safe. Compact.
Silent operation. Self-contained.
Greater flexibility. Longer tube life.
Increased diagnostic range.
Eliminates overhead system.
Same tube used over and under table.
Not affected by altitude or humidity.

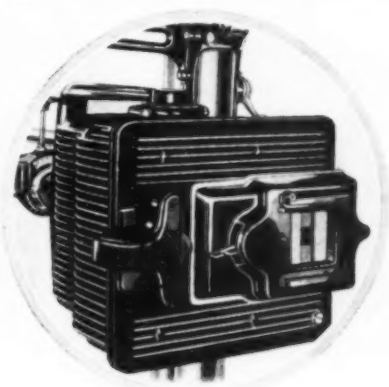
It's Oil Immersed

THEY said it couldn't be done. To eliminate *all* danger of shock from X-ray apparatus does seem impossible. Yet Victor engineers have succeeded.

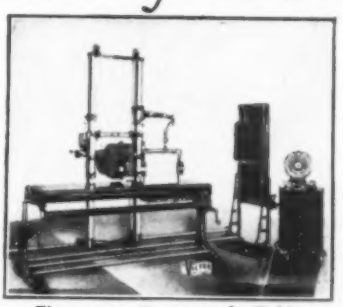
The secret of the Victor Shock-Proof X-Ray Unit, as you will see from study of the illustration, lies in the tube head. Both X-ray tube and high tension transformer, *immersed in oil*, are sealed inside this container. Completely insulated, the high tension current that has made X-ray apparatus dangerous, is kept where no one can come in touch with it.

Handle any part of this Victor Unit while in operation. There is no possibility of shock. Scientific publications the world over are proclaiming this one of the most remarkable achievements of recent years. Truly this unit represents, as they say, the most important development in roentgenology since the Coolidge tube itself.

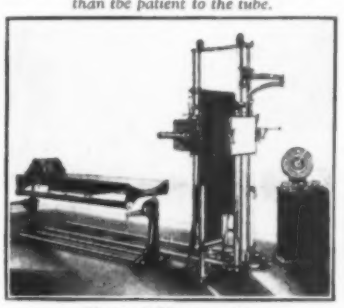
May we send you a folder illustrating and describing this remarkable unit?



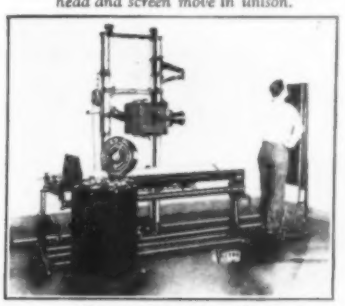
Close-up of tube head of Victor Shock-proof X-Ray Unit in which both the X-ray tube and high tension transformer are mounted in oil, completely insulated and sealed, thus confining all high voltages within this head



Fluoroscopy Crosswise the Table
Offers new possibilities in routine X-ray diagnosis. The tube head may also be adjusted angularly for this purpose. Thus the tube is adjusted to the patient rather than the patient to the tube.



Vertical Fluoroscopy
The tube head is behind the vertical fluoroscope. Note how the fluoroscopic screen swings into its natural position. The tube head and screen move in unison.



Vertical Radiography
A cassette tunnel is mounted on the back of the vertical fluoroscope. A vertical stereo shift (motor operated) is provided on the tube head carriage.

Other features

Introduces a new principle of control.
Consistent results.
Complete diagnostic service.
Unit construction permits variation according to specialty.
Minimizes danger around ether, as when setting fractures, etc.
Few retakes—longer tube life.

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A GENERAL ELECTRIC ORGANIZATION

NEWS OF THE MONTH

Important Hospital Meetings Will Feature Week of February 17

Plans have been made for what it is hoped will be the largest state hospital association meeting ever held, to take place the week of February 17. During that week the Hospital Association of the State of Illinois, the Wisconsin Hospital Association and the Indiana Hospital Association will meet jointly in Chicago, with members of the Michigan Hospital Association attending as guests of the three other states.

During the same week the American Medical Association will hold its Annual Congress of Medical Education,

Dr. D. M. Morrill, president of the Michigan Hospital Association.

Licensure and Hospitals, the National Methodist Hospitals, Homes and Deaconess Work Association will meet in Chicago, the trustees of the American Hospital Association are expected to meet that week, and the executive committee of the American Protestant Hospital Association is meeting.

Plans are also being formulated for a meeting of nursing councils and another one of social service workers.

The American Medical Association's meeting will open at the Palmer House on February 17 and will continue through February 19. A program of especial interest to hospital administrators and department heads has been planned. Laboratory, x-ray, physical therapy and operating room procedures will be discussed by staff members and hospital administrators.

On Wednesday, the nineteenth, there will be separate state meetings for the three states participating, and on February 20 and 21 the joint meeting of the three associations will convene at the Palmer House.

It is expected that fully 500 people will attend this meeting. The hospital associations have planned an unusually strong program, which has been under the direction of Dr. Malcolm T. MacEachern, associate director, American College of Surgeons, and outstanding hospital authorities in all parts of the country have been assigned places on the program. The subjects that will be discussed will in no way conflict with those that are on the program for the American Medical Association's congress but each will supplement the other, providing a well rounded hospital program. Plans are under way by the Methodist Homes and Hospitals for an intensive two-day program in which many phases of hospital work are to be discussed.

It is expected that a great many of the medical and hospital people attending the American Medical Association meeting will also attend the hospital sessions and arrangements are being made to take advantage of the fare-and-a-half offer by the railroads for meetings that have an attendance of more than 150 persons.

Conference of Social Work Will Meet in Boston

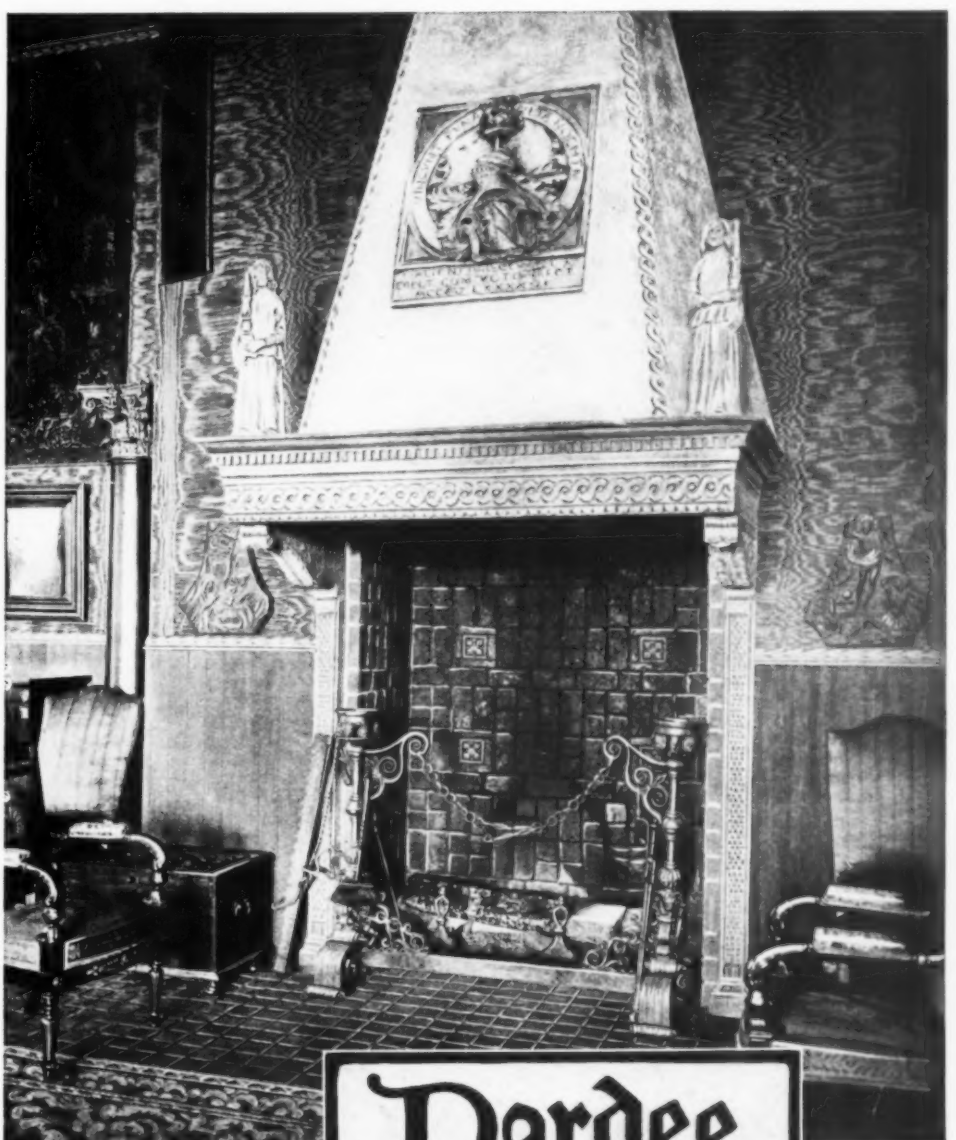
The fifty-seventh annual meeting of the National Conference of Social Work and Associate Groups will take place in Boston, June 6 to 14, 1930. More than forty groups in various fields of social work will meet at that time. The conference will be formally opened on the evening of June 8 by a presidential address given by Dr. Miriam Van Waters, referee of the Los Angeles Juvenile Court.

Established in 1874 as an organization for the discussion of problems common to boards of state charities, the conference has grown into a general gathering of social forces, with representatives from fields concerning immigration, family case work, health, neighborhood life, dependency, delinquency, mental hygiene, and industrial and economic problems.

Pardee tiles give that cheery touch to your hospital

Modern hospitals are striving to create as homelike an atmosphere as possible. Nothing contributes so much as attractive fireplaces in entrance halls, reception rooms and private rooms. And to give these fireplaces a distinctive and cheery effect there is nothing to take the place of Pardee tiles.

These real tiles stand both extreme heat and hard wear. Their mellow beauty endures for generations due to the exclusive Pardee high temperature burning and special screening process. In addition their hard surfaces insure the perfect sanitation so necessary for hospital operating rooms, kitchens, baths, hallways, etc.



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News of the Month

United Hospital Fund Celebrates Fiftieth Anniversary

In celebration of its fiftieth anniversary which occurred on December 2, the United Hospital Fund of New York, organized to aid the poor sick of New York City, instituted a campaign to raise $1,000,000 to help its fifty-nine hospital members.

The fund, one of the five beneficiary organizations under deed of trust executed by the Laura Spelman Rockefeller Memorial Fund when it merged with the Rockefeller Foundation, started as the Saturday and Sunday Association, the purpose of which was to collect funds for the sick poor. It adopted its present name in 1916.

During the last year, the fund has distributed $650,000.

New England Medical Center Established

A medical center is to be established in the heart of Boston on the site of the Boston Dispensary. This project, to be called the New England Medical Center, will represent the combination of forces of three well established Boston institutions—the Boston Dispensary, the Boston Floating Hospital and Tufts College Medical School, and will have for its purpose the care of the needy sick, both young and old, and the training of family doctors for the small communities of New England.

The medical center when completed will consist of a great city dispensary, a modern free hospital for babies and small children, classroom and teaching facilities for the training of doctors and scientific laboratory, x-ray and operating equipment for the use of all three.

In the training of family doctors, the center will carry on and enlarge the work already being done by Tufts College, which for several years has had as its goal the training of active practitioners for New England.

Last year approximately 30,000 men, women and children were helped by the Boston Dispensary, and with the formation of the new center, this work will be continued and expanded.

The burning of the Boston Floating Hospital's ship in 1927 curtailed the work being done in providing for the poor sick babies of the city. The new institution, being built on shore and not being open for only a few weeks in the summer, will be able to care for children all the year.

It is expected that uniting these three institutions into a single unit will be of great advantage to each of them.

Health Forum Instituted at Brooklyn Hospital

The United Israel-Zion Hospital, Brooklyn, held the opening lectures of a Health Forum on November 27, at the Community Center of Public School 164.

This is the second series of lectures undertaken by the hospital in its program of enlightening the community on vital matters of health. The next course concerns itself mainly with instructing the expectant mother in the essentials of prenatal care and sex hygiene. The following subjects will be discussed at the various meetings: the health of the family; the necessity of frequent physical examinations for pregnant women; regulation of food, exercise, amusements and clothes; significance of swollen feet or face; eye trouble; backache; headache; constipation; sex hygiene and care of the body; how to avert common accidents; effect of some diseases upon mother and child; teething; causes and prevention of blindness in infants; care of infants and infant feeding; how to prevent infants from forming bad habits; outdoor life of infant and child.

At every meeting an interesting entertainment and musical program will be given, many artists having signified their desire to assist the hospital in its communal progress.

"In civilized communities the care of the mother during pregnancy assumes each year greater importance," Boris Fingerhood, superintendent of the hospital, states. "The more advanced the country, the greater the care it exercises in safeguarding the health and longevity of the citizens. Hospitals, particularly, have a grave obligation in such matters. It is up to them to do everything in their power to prevent as well as cure human ills. Since our Forum in 1925 we have had repeated requests for a continuation of these lectures. We hope to make them an annual feature of our communal activities."

Coming Meetings

American Society of Clinical Pathologists.
President, Dr. J. H. Black, Dallas, Texas.
Secretary-treasurer, Dr. H. J. Corper, Metropolitan Bldg., Denver, Colo.
Next meeting, Detroit, Mich., June 20-23.

American Medical Association.
President, Dr. M. L. Harris, 25 E. Washington Street, Chicago.
Secretary, Dr. Olin West, 535 No. Dearborn Street, Chicago.
Next meeting, Detroit, Mich., June 23-27.

Annual Congress on Medical Education, Medical Licensure and Hospitals.
Next meeting, Chicago, February 17-19.

National Methodist Hospitals, Homes and Deaconess Work Association.
President, Dr. J. A. Diekmann, Bethesda Hospital, Cincinnati, Ohio.
Secretary, Guy M. Hanner, Beth-El General Hospital, Colorado Springs, Colo.
Next meeting, Chicago, February 18-19.

Hospital Association of the State of Illinois.
President, J. W. Meyer, Aurora Hospital, Aurora.
Secretary, E. I. Erickson, Augustana Hospital, Chicago.
Next meeting, Chicago, February 19-21.

Indiana Hospital Association.
President, Albert G. Hahn, Deaconess Hospital, Evansville.
Secretary, Gladys Brandt, Cass County Hospital, Logansport.
Next meeting, Chicago, February 19-21.

Iowa Hospital Association.
President, Robert E. Neff, University Hospital, Iowa City.
Secretary, Harold A. Grimm, The Finley Hospital, Dubuque.
Next meeting, Waterloo, February 27-28.

Hospital Association of Pennsylvania.
President, Elizabeth H. Shaw, St. Margaret's Memorial Hospital, Pittsburgh.
Secretary, Howard E. Bishop, Robert Packer Hospital, Sayre.
Next meeting, Pittsburgh, March 25-27.

Wisconsin Hospital Association.
President, Dr. J. W. Coon, River Pines Cottage Sanatorium, Stevens Point.
Executive secretary, L. C. Austin, Mt. Sinai Hospital, Milwaukee.
Next meeting, Chicago, February 19-21.

Yours for the asking

"Scientific Hospital Meal Distribution"—a manual for dietitians, superintendents, architects, and those who plan hospitals. 1930 edition. Illustrated. Sent on request.

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News of the Month

Montefiore Hospital Completes Drive for Funds

The board of trustees of Montefiore Hospital for Chronic Diseases, New York City, has announced the successful completion of a drive for $1,200,000 to be used for the modernization and expansion of the Gun Hill Road institution. It is planned to modernize the buildings and their equipment and to reorganize a number of the services of the hospital in a desire to confirm the position of this hospital as the recognized model of its kind. The expansion program is now under consideration and will include a research laboratory building and extended facilities for the care of the custodial type of patient, releasing the main hospital group for the care of the patients who require active medical and nursing attention.

An informal reception in lieu of formal dedication exercises was held at the recently completed country sanatorium at Bedford Hills, New York. The buildings, which house 220 patients, and the site represent an outlay of two and one-half million dollars.

A detailed description of the country sanatorium will appear in the next building and equipment number of THE MODERN HOSPITAL.

Methodist Hospital Association to Meet in Chicago

The annual meeting of the National Methodist Hospitals, Homes and Deaconess Work Association will be held at the Congress Hotel, Chicago, February 18 and 19, 1930.

All hospital and home administrators as well as members of the board of trustees and superintendents of nurses are invited to be present. The Methodist Deaconess Association will meet in conjunction with this association and their annual meeting will be held on Tuesday, February 17.

J. A. Diekmann, superintendent, Bethesda Hospital, Cincinnati, is president and Guy M. Hanner, superintendent, Beth-El General Hospital, Colorado Springs, Colo., is secretary of the association.

Three Nurses Receive Important Appointments

Three nursing appointments of unusual interest have recently been announced.

Bessie Baker, A.N., was appointed dean of the school of nursing and professor of nursing education of the Medical School of Duke University, Durham, N. C. This appointment, taking place a year and a half in advance of the opening of the medical school, indicates the careful plans that are being made before the admission of the first students, plans that allow for the discussion and development of important policies. Miss Baker, a graduate of the Johns Hopkins Hospital School of Nursing, has been associated with the Woman's Hospital, Baltimore, the Johns Hopkins Hospital and Base Hospital No. 18. Since 1922, she has been director of nursing in the Charles T. Miller Hospital, St. Paul, Minn., and assistant professor of nursing at the University of Minnesota.

Ethel E. Johns, R.N., has been made director of studies of the Committee on Nursing Organization of the New York Hospital. The formation of this committee is particularly interesting since it supports the facts that directors of hospitals and medical schools are coming more and more to realize the basic position of the nurse in planning the whole structure of the hospital, the medical school and the nursing school. Miss Johns, a graduate of the School of Nursing of the Winnipeg General Hospital, was superintendent of the McKellar General Hospital, Fort William, Canada, and for four years held a similar position at the Children's Hospital, Winnipeg. While she was serving as assistant professor of nursing and health in the University of British Columbia, she was also director of nursing at the Vancouver General Hospital. She was field director attached to the Paris office of the Rockefeller Foundation for four years. Her wide practical experience in hospital and nursing work make her appointment as director of studies timely.

Marian Rottman, R.N., has been made director of the division of nursing of the department of hospitals of New York City. A graduate of Bellevue, Miss Rottman has been associated with the Robert W. Long State Hospital, Indianapolis, the Johnston Emergency Hospital, Milwaukee, the Mt. Sinai Hospital, Milwaukee, the Central School of Nursing, Milwaukee, and the Nursing Schools of Bellevue and Allied Hospitals.

Johns Hopkins Dedicates New Medical Library

The Welch Medical Library, which houses three collections of books—that of the Johns Hopkins Hospital, the School of Hygiene and Public Health and the School of Nursing—was recently dedicated at Baltimore. Dr. Harvey Cushing, Moseley professor of surgery of the Harvard Medical School, delivered the principal address, while Dr. Karl Sudhoff, professor emeritus of the University of Leipzig, Abraham Flexner, New York, and Dr. Otto Warburg of the Kaiser Wilhelm Institute, Berlin, also spoke.

The library, housed in an Italian Renaissance building of varigated stone, has a capacity of 500,000 volumes. The racks are identical with those recently installed in the Vatican library. The book stacks form the center of the building and rise to its entire height. The first two floors of the building are for the library and the upper for the department of the history of medicine. The ground floor provides offices for the staff, bindery, smoking and coat rooms and the kitchen. At the landing of the marble staircase rising from the lobby is a bust of Doctor Welch. Sargent's painting, "The Four Doctors" hangs in the great hall on the second floor.

Dr. William H. Welch, for whom the library is named, has taught at Johns Hopkins School of Medicine for about forty-five years as professor of pathology and as dean of the medical faculty and director of the school of hygiene and public health.

1855 • SEVENTY-FIFTH ANNIVERSARY • 1930

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From closets equipped with this new Water Controlled, Direct Flushing Valve, with Vacuum Breaker, polluted water can never be drawn off. Thus a threat of infection is removed.

Through the investigations of Doctor Arnold H. Kegel, Chicago Health Commissioner, and the Chicago Board of Health, one of the most pernicious and mysterious causes for the spreading of infections in hospitals has been found.

Crane Co., constantly striving to assist hospitals in working out problems of sanitation, collaborated with the Chicago Board of Health in finding a means of removing this threat.

The cause of the infection is the syphoning of polluted water, from fixtures with submerged supply inlets, into the main water system where there is danger of its being drawn off for use in other fixtures.

By perfecting a vacuum breaker valve, which prevents such syphoning, Crane engineers have provided a remedy for this condition.

This valve, and the discovery behind it, mark an important advance in the science of hospital plumbing. For complete information regarding it, you need but get in touch with Crane hospital plumbing experts.

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News of the Month

California Hospital Superintendents Meet

The California Sanatorium Association, which was recently organized by superintendents and medical directors of county tuberculosis sanatoriums of California, met November 12, 1929, at the Wish-i-ah Sanatorium, Auberry, Calif. The following officers were elected: Dr. Everett Morriss, Wish-i-ah Sanatorium, president; Dr. E. A. Schaper, Stonybrook Retreat, Keene, vice-president, and Dr. Thomas C. O'Connor, Bret Harte Sanatorium, Murphy, secretary-treasurer.

The purpose of the organization is to enable the members to make personal contacts and to give them an opportunity to discuss problems coming up in the sanatoriums.

An informal round table discussion on sanatorium technique was led by Dr. Chesley Bush, Arroyo Sanatorium, Livermore. The problems brought up were: the contact of the sanatorium with the outside public; visiting hours and the ages of visitors; subsidy cases; food cost and per capita cost; comparison of ways of handling dietetic problems; use of the dietitian in the hospital; smoking among patients; time limit on cases; follow-up work, and length of residence in county and state before admission to county sanatoriums.

Committee on Cost of Medical Care Has New Members

The Committee on the Cost of Medical Care has recently added five new members: Dr. Alphonse Schwitalla, S.J., president of the Catholic Hospital Association and dean of the School of Medicine of St. Louis University; Dr. Ambrose Hunsberger, a member of the American Pharmaceutical Association and of the National Drug Trade Council; Dr. William F. Ogburn, president of the American Sociological Society and professor of sociology, the University of Chicago; Dr. C. E. Rudolph, a member of the board of trustees of the American Dental Association, and Dr. John Sundwall, professor of public health, University of Michigan.

Jewish Hospital Raises Over a Million

The Jewish Hospital, Cincinnati, recently completed a remarkable campaign for funds, during which $1,508,000 was raised in twelve days, in spite of the fact that there was a semi-panic in the stock market at the time.

The campaign was citywide and contributions from non-Jewish citizens amounted to more than three hundred thousands dollars. The public appreciated the fact that the hospital had been rendering a community service for the past seventy-five years and generously contributed to the fund, which will enable the institution to make timely improvements.

The program calls for the construction of a new power plant costing $110,000; a new hospital building at a cost of $625,000; a new nurses' home at a cost of nearly $500,000; a new psychopathic institute at a cost of $60,000, and the purchase of necessary grounds for the new building and improvements.

The plans for the nurses' home, according to Louis Cooper Levy, superintendent of the hospital, are completed and the structure will be underway about the first of the year. The home will accommodate nearly 200 nurses and personnel and will be equipped with classrooms and a modern gymnasium and auditorium.

When completed the Jewish Hospital will have facilities for 338 beds. The new building will be added to the seven story structure completed four years ago.

Medical Buildings Dedicated at the University of Virginia

The University of Virginia recently dedicated a group of medical buildings costing $1,400,000. The architecture of the group harmonizes with the Jeffersonian style of the original buildings of the university. Friends and alumni gave $350,000 toward raising the amount; the state of Virginia $250,000, and the General Education Board, $800,000.

The principal building of the group, devoted to medical sciences, houses the departments of biochemistry, pharmacology and materia medica, physiology, histology, embryology and photography. The outpatient department is on the first floor, the museum and library are on the second, the departments of pathology and bacteriology on the third and the neuro-anatomy laboratory on the fourth. A pavilion with an amphitheater two stories high comprises the west wing. On the first floor of this wing are the record room, the drug room, lecture rooms and examining and sterilizing rooms. The building is connected by corridors with a 275-bed hospital, states the *Journal of the American Medical Association.*

New York Hospital Association Endorses an Annual Health Day

The outstanding feature of the meeting of the Hospital Association of the State of New York, held October 22 at the Hotel Belmont, New York City, was the suggestion that the association sponsor a plan for an annual health day and pledge itself to an active campaign of education to bring about its national and state observation.

Briefly, the plan provided for requesting the state legislature to provide for an annual health day for the purpose of having health examination on that day as a preventive of disease. Physicians in their offices, hospitals, dispensaries and health centers would conduct these examinations, thus placing them within the reach of everyone.

Physicians who give the examinations would have to be instructed in the manner of conducting them and in the institution of proper follow-up work.

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News of the Month

Taggart Heirs Give Money for Children's Welfare

The Methodist Episcopal Hospital, Indianapolis, has received $60,000 for construction of a solarium and children's floor from the members of the family of Thomas Taggart, three times mayor of Indianapolis and former United States senator. On receipt of this gift, trustees of the hospital announced their plans to convert the entire fifth floor of a new eight-story unit into a children's floor.

The gift will make possible the construction of a glass enclosed sun treatment room and playroom for children in the hospital, glazed to admit the health building ultraviolet rays of the sun. This room will be accessible to all the thirty-four or more rooms that compose the children's ward.

The new annex, a $2,200,000 structure, is so constructed that it can support eight additional stories. It has a service building containing x-ray rooms, laboratories and large surgery rooms, as well as a new power plant and laundry. The hospital will thus be equipped to offer all types of service to its patients.

A gift of $100,000 from Delevan Smith made possible the additions to the obstetrical department while a gift from John E. Wile made possible the erection of the nurses' home.

Connecticut Association Elects Officers

At the annual meeting of the Connecticut Hospital Association, the following officers were elected: president, Dr. B. Henry Mason, superintendent, Waterbury Hospital, Waterbury; first vice-president, Evelyn Wilson, superintendent, Stamford Hospital, Stamford; second vice-president, Sister Elizabeth Mary, St. Francis' Hospital, Hartford; secretary, Maud E. Traver, New Britain General Hospital, New Britain, and treasurer, Anna Griffin, superintendent, Danbury Hospital, Danbury. The three directors elected for the coming year were: Dr. Harold Hersey, superintendent, Bridgeport Hospital, Bridgeport, chairman; Albert Buck, superintendent, New Haven Hospital, New Haven, and Frances West, superintendent, Charlotte Hungerford Hospital, Torrington.

California to Govern Storage of Films

Tentative safety orders to cover the hazard of storing and handling x-ray film in hospitals in California will be prepared by a committee of interested citizens in collaboration with engineers of the state industrial accident commission, Will J. French, director, department of industrial relations, reported to the governor's council meeting.

This step is being taken at the suggestion of the San Francisco Junior Chamber of Commerce, in light of the Cleveland clinic catastrophe and an explosion and fire at the University of California hospital in San Francisco, November 18.

The San Francisco Junior Chamber of Commerce has asked the industrial accident commission to consider statewide steps to protect those in danger from x-ray and similar explosions. The commission will be glad to respond to the suggestion. A committee of interested citizens, with representatives from the large cities, will prepare the tentative safety orders, in collaboration with the commission's engineers. One of the latter is collecting data from every possible source to be prepared for the conferences. Later on the safety orders will be made permanent. The division of fire safety will aid in securing the best results.

Marine Hospital Is Nearing Completion at Cleveland

The U. S. Marine Hospital, Cleveland, will be completed by April, 1930. The sale of the old hospital property has provided the necessary funds. In addition to the 250-bed hospital, nine residences for staff members, a home for fifty nurses and a building for about seventy-five other members of the personnel are to be included in the group of buildings.

The marine hospitals of the United States Public Health Service admit patients who are seamen in the merchant marine, persons belonging to the coast guard, the lighthouse service, the coast and geodetic survey and several other governmental agencies.

The *Bulletin of the Academy of Medicine of Cleveland* says that this hospital is one of six operated by the Public Health Service, including the tuberculosis sanatorium at Fort Stanton, N. M., and the leprosarium at Carville, La.

Johns Hopkins to Have New Clinic Building

Work on a new medical and surgical clinic of the Johns Hopkins Hospital, Baltimore, will be begun immediately, it was announced recently by Dr. Winford Smith, director of the hospital. The new building, which will replace three wards of the hospital, will be erected at a cost of $1,300,000, the amount being supplied by the General Education Board. The work will be completed in about two years.

With the completion of this building, the hospital will have a total of 925 beds. The new unit will be devoted to the poor of the city, including both white and colored. It will be equipped with laboratories for research in medicine and surgery and with facilities for physiotherapy and hydrotherapy.

One of the units to be added to the hospital will be a children's ward for both white and Negro children, a service the hospital has not had in the past.

The building is one in which both the hospital and the university are interested because it is planned not only for the care of patients but as a part of the teaching institution.

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Personals

DR. JOSEPH P. SANDS, clinical director of the Friends' Hospital, Philadelphia, was recently named as the new superintendent of the Philadelphia Hospital for Mental Diseases, Byberry, Philadelphia, succeeding DR. EVERETT SPERRY BARR. DOCTOR SANDS received his medical training at the Medico-Chirurgical College, Philadelphia. He became interested in psychiatry and later was associated with the New Jersey State Hospital, Trenton, and the Philadelphia Hospital for Mental Diseases. DOCTOR BARR has accepted the superintendency of the Chester County Hospital, West Chester, Pa., succeeding OLIN S. EVANS.

CALVIN H. HILL, a manufacturer and leader in commerce and president of the hospital association of West Suburban Hospital, Oak Park, Ill., died November 19, 1929, at the age of seventy-three. MR. HILL had taken an active part in the management and financial arrangements of the hospital.

MARGARET J. DONALDSON, R.N., was recently appointed superintendent of the Henry County Soldiers' and Sailors' Hospital, Mount Pleasant, Iowa.

DR. OSCAR J. HAGEBUSH is the new superintendent of the Anna State Hospital, Anna, Ill.

SARAH P. LAWRENCE, R.N., was recently made superintendent of the New York Hospital for Women and Children.

EARL R. CHANDLER has been named superintendent of Columbia Hospital, Milwaukee, succeeding CHARLES KARROW, who has resigned. MR. CHANDLER was formerly assistant to the superintendent, St. Luke's Hospital, New York City.

MABEL WHEELER, R.N., supervisor at Phillips House, Massachusetts General Hospital, Boston, for almost five years, is now superintendent at Somerville Hospital, Somerville, Mass.

FREDERICK W. KINSMAN has been appointed superintendent of the South West General Hospital, Chicago.

DR. C. E. REMY, assistant superintendent, Michael Reese Hospital, Chicago, has been appointed superintendent of Montefiore Hospital, Pittsburgh, to fill the vacancy caused by the death of DR. JOHN D. SPELMAN.

MAY A. MIDDLETON, business manager of the Methodist Episcopal Hospital, Philadelphia, has been made superintendent of the hospital. MISS MIDDLETON, a graduate of the Teachers State College, West Chester, Pa., and the Pierce School of Business Administration, Philadelphia, came to the Methodist Episcopal Hospital in 1914 and served one year as assistant to the business manager; she became business manager in 1915. MARGARET E. FOWLER, R.N., was elected superintendent of the training school of the hospital to succeed ALICE M. GARRETT, who resigned on account of illness.

DR. G. S. EDMONSON, Clinton, Ill., has recently been appointed superintendent of the Kankakee State Hospital, Kankakee, Ill.

LOUIS H. PUTNAM, the new superintendent of Staten Island Hospital, Staten Island, N. Y., succeeding MARVIN C. WESTERVELT, who died last Spring, has had twenty-six years' experience in executive administration in city, state and national organizations. MR. PUTNAM has been director of boys' work at Atlanta and Birmingham, superintendent of a county court system, Mobile, Ala., director of Boy Scouts for the state of Maryland and superintendent of the North Carolina Children's Home. In 1923 he assumed the general directorship of state institutions in Rhode Island. Between that time and his appointment at Staten Island Hospital, he was executive officer in charge of twenty Rhode Island institutions, departments and bureaus embraced in the state's social welfare system.

ELIZABETH HALLETT, Boston, Mass., is the superintendent of the Sterling Hospital, recently opened at Standish, Mich.

SISTER MARY RITA, R.N., is the new superintendent of Pittsburgh Hospital, Pittsburgh.

MARY BRAKE was recently appointed superintendent of Park View Hospital, Rocky Mount, N. C.

ESTHER K. MILLER, formerly with Howard Hospital, Philadelphia, was recently made superintendent of Mt. Sinai Hospital, Philadelphia.

DELORA RODEEN, superintendent of nurses, Silver Cross Hospital, Joliet, Ill., has resigned to become superintendent of a hospital at Topeka, Kan. MRS. RODEEN attended the nurses' training school of Brokaw Hospital, Bloomington, Ill., and was associated with the Mennonite Hospital, Bloomington, before she took up her duties at Joliet.

MINNIE F. PALLAS has been appointed to the superintendency of the Hot Springs County General Hospital, Hot Springs, Ark. She was formerly affiliated with the Modern Hospital, Hot Springs.

DR. R. C. FAGLEY has accepted the position of superintendent of the City Sanitarium, St. Louis. For the past nine years, DOCTOR FAGLEY has been chief of the department of mental and nervous diseases of the United States Veterans' Bureau.

MISS L. H. JESSE, Ashland, Va., has recently been made superintendent of the Loudoun County Hospital, Leesburg, Va., succeeding Maud S. Alton, resigned. MISS JESSE has previously been in charge of hospitals at Rocky Mount, N. C., and at Knoxville, Tenn.

LEAH BROWN has been selected as superintendent of Phelps Hospital, Macomb, Ill. She succeeds BELLE HOFFMAN, who resigned a few months ago on account of ill health.

ELLEN KREISEL is now superintendent of the McPherson Hospital, Howell, Mich., succeeding MISS G. O. BAKKE. MISS KREISEL is a graduate of the Kahler School of Nursing, Rochester, Minn., and took a course in nursing at Minnesota University. She has served in hospitals in Rochester and in Clinton, Iowa.

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Personals

ROBERT B. WITHAM has been made director of the Children's Hospital, Denver, where he has been business administrator for the last two years. MR. WITHAM is experienced in hospital work, having been administrative officer at the United States Naval Hospital, Fort Lyon, Colo., for five years.

ALICE M. SMALL, R.N., was recently appointed superintendent of the Maple Avenue Hospital, Du Bois, Pa. MISS SMALL was formerly at the Deaconess Hospital, Spokane, Wash.

ANNA B. NORTHRUP, R.N., has been made superintendent of the Chippewa County Memorial Hospital, Sault Ste. Marie, Mich., succeeding F. R. FLEMING. MISS NORTHRUP is a graduate of the Homeopathic Hospital, Providence, R. I.

WINNIE FITZGERALD, formerly with the King's Daughters' Hospital, Columbia, Tenn., is the new superintendent at the Colbert County Hospital, Sheffield, Alabama.

ALBERTA WITT, R.N., was recently appointed superintendent of the Stillwater Hospital, Columbus, Mont.

EDNA M. EBERL, R.N., has been appointed superintendent of the Deaconess Hospital, Bozeman, Mont., succeeding EDITH J. ACKERMAN, R.N., who resigned to enter upon more intensive deaconess work. MISS EBERL is a graduate of the Montana Deaconess Hospital, Great Falls, Mont.

FLORENCE G. ELLIS, formerly superintendent of nurses, Little Rock General Hospital, Little Rock, Ark., is now superintendent of the hospital.

DR. C. T. JONES has recently been appointed to the superintendency of the New Jersey State Colony, New Lisbon, N. J. DOCTOR JONES was formerly superintendent of the Wyoming State Training School, Lander, Wyo., and director of the State Department of Institutions and Agencies, Trenton, N. J. He still holds the latter position, pending the appointment of his successor.

JESSIE A. HORN is the new superintendent of the Scripps Memorial Hospital, La Jolla, Calif. MISS HORN, who was formerly connected with the McCulloch Hospital, San Diego, Calif., succeeds ADA K. GILLESPIE, who has resigned.

FLORENCE L. GIBSON, assistant superintendent at Berea College Hospital, Berea, Ky., has been made superintendent of the hospital.

HELEN R. FOWLER, the new superintendent of the Florence Crittenden Home and Hospital, Boston, served the Boston Lying-in Hospital as out-patient social worker and director of clinics and social service before accepting her new position.

DR. PHILIP S. PLATT, formerly executive secretary of the Associated Out-patient Clinics Committee and assistant director of the New York Tuberculosis and Health Association, has accepted the position of director of the Palama Settlement, Honolulu.

MAJOR ROGER A. GREENE, personal director of the Pennsylvania Department of Welfare has been appointed superintendent of the Pottsville Hospital, Pottsville, Pa. MAJOR GREENE, a graduate of the University of Pennsylvania law school, has had charge of the rehabilitation of several hospitals of the state and has been engaged in personnel work for about nine years.

DR. BENJAMIN F. GOLDEN has been appointed superintendent of the Davis Memorial Hospital, Elkins, W. Va., to succeed his father, the late DR. W. W. GOLDEN, who headed the institution for twenty-five years.

MAJOR WALTER L. SIMPSON has resigned as superintendent of the Watts Hospital, Durham, N. C.

FRANCES CLEAVE, until recently superintendent of Southside Community Hospital, Farmville, Va., has been appointed director of the Detroit Health Center, Detroit, Mich.

Nursing Courses Given at Minnesota College

The College of Saint Teresa, Winona, Minn., announces that beginning January 20, 1930, and continuing through a six weeks' period, Carolyn E. Gray, B.S., A.M., a member of the National League of Nursing Education and Chairman of the Committee on Nursing Education in Colleges and Universities, will offer the following courses in nursing administration at the college: nursing school organization, nursing supervision in hospitals and schools of nursing and survey of the nursing field. Each of these courses carries two points of college credit counting toward the Bachelor's degree.

The college offered courses in nursing administration for the first time in 1929. These courses, under the direction of Miss Gray, were attended by eleven students. It is expected that the enrollment for Miss Gray's work in 1930 will be at least double that of last year. The college introduced the courses in nursing administration as a part of the regular work leading to the degree of Bachelor of Science in nursing, which degree was conferred at the college for the first time at the June commencement exercises, 1927.

Rural Hospitals Provided for Canada

Rural sections of the province of Saskatchewan, Canada, are divided into community hospital districts which provide doctors and medical facilities for the residents, according to the Children's Bureau, Department of Labor.

Under this system, resident taxpayers of several districts combine in erecting a hospital that will serve the needs of the community. The affairs of the institution are administered by a board composed of members from each cooperating district. This plan helps solve the problem of keeping doctors in rural districts and providing hospital facilities for rural residents.

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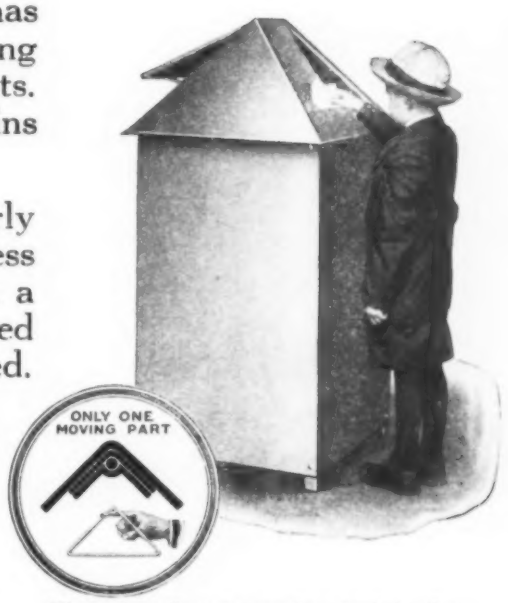

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NURSING AND THE HOSPITAL

Conducted by M. HELENA MCMILLAN, R.N.,
Director, School of Nursing, Presbyterian Hospital, Chicago

Is the Hospital Meeting the Challenge of Good Nursing Care?*

By PAUL H. FESLER
Superintendent, University of Minnesota Hospitals, Minneapolis

THE nursing problem was clearly stated by Dr. May Ayres Burgess when she presented the preliminary report of the Committee on the Grading of Nursing Schools at the meeting of the American Nurses Association in Louisville, Ky., in 1928.

The problem, as analyzed in the report, is (1) to reduce and improve the supply by making a decisive and immediate reduction in the number of students admitted to schools of nursing in the United States, and by raising entrance requirements high enough to admit to the profession only properly qualified women; (2) to replace student nurses with graduates by making graduate nurses responsible for a major part of hospital bedside nursing; (3) to help hospitals meet the cost of graduate service by aiding them in securing the funds for the employment of graduate nurses and by improving the quality of graduate nursing so that hospitals will desire to have it; (4) to get public support for nursing education by placing schools of nursing under the direction of nurse educators instead of hospital administrators and by awakening the public to the fact that if society wants good nursing it must pay the cost of educating the nurses. Nursing education is a public responsibility.

At the same time the committee also presented the following resolutions, which had been unanimously adopted:

"No hospital should be expected to bear the cost of nursing education out of funds for the care of the sick. The education of nurses is as much a public responsibility as is the education of physicians, public school teachers, librarians, ministers, lawyers and other students planning to engage in professional public service and the cost of such education should come, not out of the hospital budget but from public or private funds.

"The fact that a hospital is faced with serious financial difficulties should have no bearing upon whether or not it will conduct a school of nursing. The need of a hospital for cheap labor should not be considered a legitimate argument for maintaining such a school. The decision as to whether or not a school of nursing should be conducted in cooperation with a given hospital should be based solely upon the kinds and amounts of educational experience which that hospital is prepared to offer."

This, then, is the nursing problem, not only from the standpoint of the nurse, but also from the standpoint of all agencies represented upon this committee. These agencies include all of the major organizations that are concerned with the setting of standards in the practice of medicine and nursing. We cannot question the right of the nurse to a complete education. The good old fashioned nurse could no more keep up with the modern education of the doctor than the horse and buggy can keep up with the aeroplane and the automobile. The committee in its preliminary report has been mindful of the financial limitations of the hospital. It is now studying questionnaires to ascertain actual conditions in the personnel of the schools of nursing. Without doubt, the committee will succeed in having the number of schools, and possibly the number of students, greatly reduced.

Let us now view the problem from the standpoint of the patient in the hospital. It is the patient who presents the challenge to those who are responsible for the conduct of hospitals. Providing satisfactory hospital care for patients does not present the same problem to the large hospitals of Chicago and New York as it does to the hospitals in the rural districts and small towns. More than 50 per cent of all the hospital beds are in towns of less than 10,000 and 61 per cent are in towns of less than 25,000. Only a short time ago, the country hospital consisted of a room or two over the drug store. To-day, practically every community has a modern hospital with x-ray departments and laboratories, with up-to-date equipment and with doctors who know how to use it. The doctors have built these hospitals in order to give their patients good care.

It is difficult to get nurses to go to these small communities. A nurse, trained under the pressure and conveniences of a large modern hospital, craves action. This she does not get to the same degree in the small hospital. For this reason hospitals in the small communities usually have nursing schools. They have had to start a school in order to have nursing service. It would be

*Read at the Hospital Standardization Conference of the American College of Surgeons, Chicago, October 14-18.

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less expensive for them to have graduate nurses and they would doubtless prefer graduate nurses to student nurses, but the patient must be cared for and in a great many instances the nursing school is the only way of meeting this need. So the real problem now is how to give satisfactory care to the patient in the small hospitals which, according to the reports of the American College of Surgeons, contain half the hospital beds in this country.

This matter has been covered in the resolution in which "serious financial difficulties" and the "need for cheap labor" are mentioned, but neither of these problems is involved here. In other words, the care of more than 750,000 patients in hospitals each day in the United States is largely dependent upon student nurses. There are only 200,000 graduate nurses in this country. Of this number probably one-half are in service.

Cost to Middle Class Patients

The large hospital also has its problems. The superintendent of the hospital is facing many problems to-day, and he is dodging quite a few. Nearly every day he reads a story in the press or in some popular magazine that tells about the cost of medical care to the middle class. Usually it starts and ends with the hospital bill. I do not know of a hospital of any importance that does not have good service for the middle class patient, if you can get him to admit that he belongs to this group. Most middle class patients usually spend a great deal of money on quack doctors before they get to real medical care. This practice, however, is not confined to this class. The only difference is that the poor do not have the money to go to the quack, and the rich have some left after they have been there. It is my opinion that hospital costs are simply keeping up with the advance in medicine, and I doubt if the people will ever catch up unless we can get them to pay for their operations on the "dollar down and a dollar a week" plan. Even that is not likely to work in hospitals since, of course, we cannot take back the operation if the patient refuses to pay the bill.

But this increased cost is very real. It can be definitely divided into two parts—service and education.

The only reason for the existence of a hospital, a nurse or a doctor is to give service—service to the patient. The hospital superintendent, fully cognizant of the educational function of the hospital, therefore must put service first. The added expense for service in the hospital has been more than covered in the saving of time to the patient, not to speak of the increased efficiency of the hospital itself. The patient now spends ten or twelve days in the hospital. He used to stay twenty-five or thirty days. Some of these publicity seeking doctors who write stories about three dollar a day hospital service should be introduced to the modern hospital with its laboratories and its other up-to-date equipment. Hospitals are gradually catching up with the times. They are now putting in high speed elevators, telautographs, bookkeeping machines and pneumatic tubes. It is even possible for the patient to telephone his needs to the nurse.

The most important service in the hospital so far as efficiency is concerned is the nursing service, and most superintendents are aware of this. The reputation of the hospital also rests to a great extent upon the shoulders of the nursing service. The patient knows his nurses, and if the hospital has a good reputation with its nurses, it will be carried to the public. The other day a large group of superintendents agreed that the best publicity is the satisfied patient. Because the only way to satisfy the patient is through the nursing service, for purely selfish reasons, the hospital should be interested in its nursing service. The hospital is wise to have comfortable homes for its nurses, to provide proper recreational facilities, to let them have short hours, at least as short as the maids and scrubwomen, and not to require them to perform menial tasks. A nurse is too valuable to work at other than nursing tasks. The hospital should provide trained supervisors for all departments and should use graduate nurses when necessary. If the number of students is kept down to a right level it costs no more to use graduate nurses for patients who are not valuable in the teaching of nurses. This type of patient usually requires a small amount of nursing and, if the nurses are supplemented with attendants and orderlies, the expense should be less. Graduate nurses object to being used in the same service as students, even though the work may be scientific and important. Graduate nurses should be placed where they have responsibility and authority.

In speaking of hospital service, it may be emphasized that hospitals as a rule do not pay much for their labor. Most hospital employees are paid less than would be permitted in other lines of work. This is especially true of such help as janitors. Hospitals claim that they are exceptions to labor laws and other regulatory methods. Some of these days hospitals will find that cheap labor is expensive and that many things besides nursing contribute to the cost of the operation of the hospital.

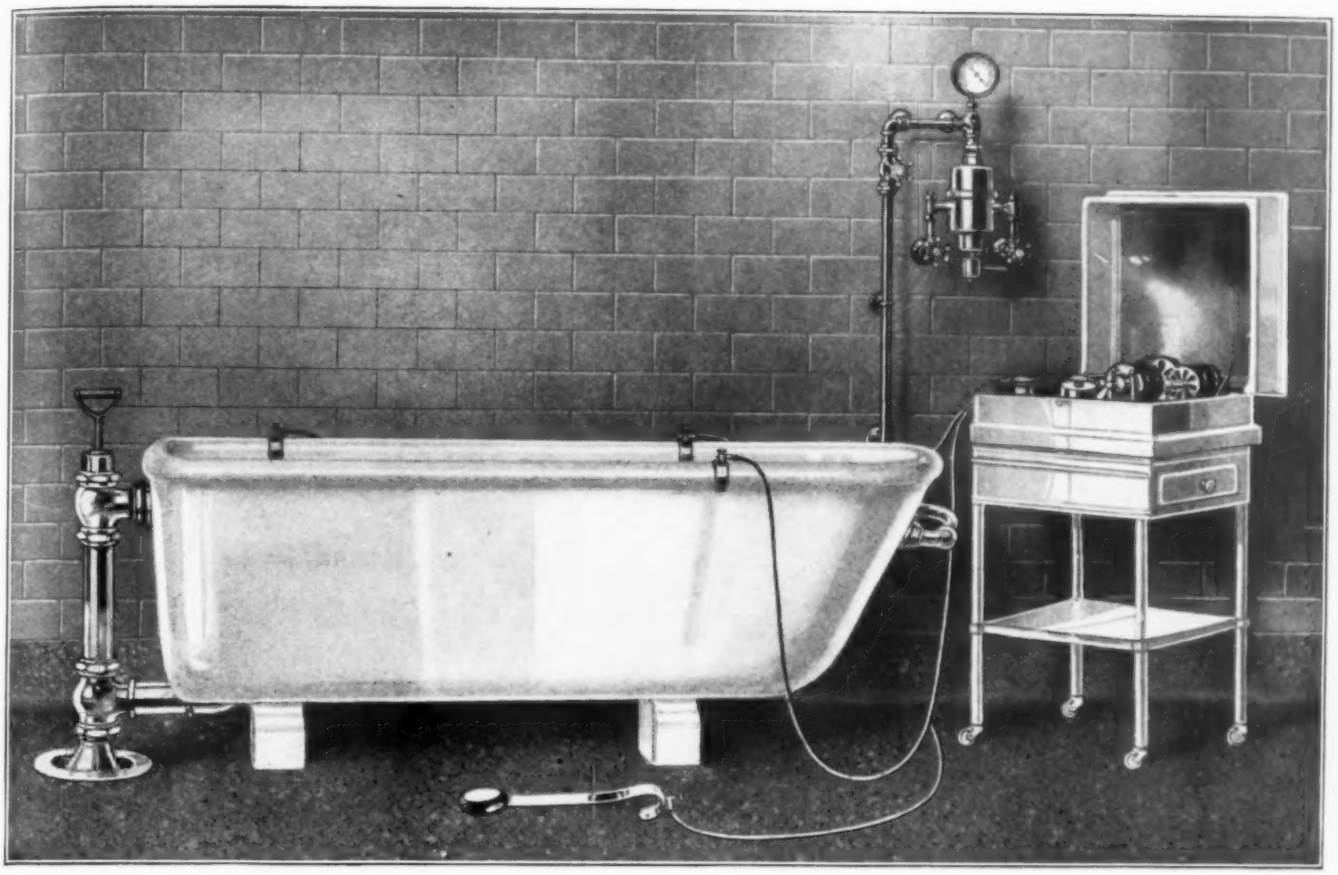
Since the whole system of hospital service centers around the nurse, the hospital can and should contribute something to education. If the hospital gives good service to its patients and its doctors, this will be reflected in a substantial way by bringing in money not only for buildings but also for education.

Nurse Training Is Expensive

Now a word about education. The superintendent of the hospital is not supposed to know about it, so he can speak freely. The matter of education is comparatively easy in the larger hospitals. It should represent no problem to the church or public hospital. Churches have educational programs that may be carried into the hospital. The public, through its boards of education, should sponsor the nursing schools in the public hospitals. The laboratories of the high schools and universities in the larger cities should furnish facilities for the teaching of fundamental subjects. All of this, of course, should be under the control of the nursing schools. In some of the larger cities, the schools are removed from politics, at least as much as the hospitals.

The large private hospitals have been carrying a large educational load. This load is responsible, in my opinion, for the difference between a cost of four or five dollars a day in the public hospital and six or seven dollars a day in the private hospital. If this expense is charged to the care of the patient, it is unfair. The patient should not pay for the education of nurses. The large hospitals however, are able to carry quite a load, since most of them are the recipients of large endowments or gifts. If they will separate this expense and appeal for funds for education, they will be able to carry even the load suggested by the grading committee. Some of the best nursing schools are in large private hospitals. These schools have long since raised their standards of admission. In fact, it seems that the burden of the education load falls upon the small hospital.

Here is where the university may serve advantageously. We have heard a great deal about the university schools of nursing. We know of the five-year combined course in nursing that is in effect in about twelve or thirteen of the larger universities. The significant thing about this

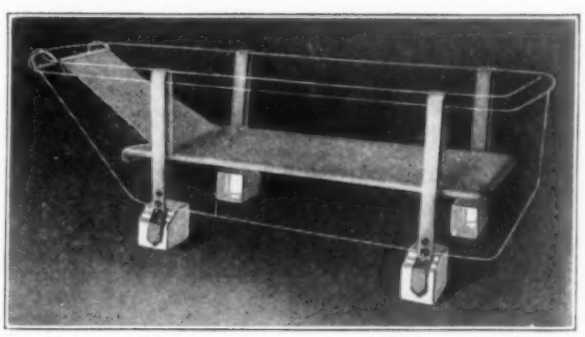


The Continuous Flowing and Electric Full Bath

The curative powers of Hydrotherapy, for many nervous ailments, is becoming more widely known each day.

The Combination Continuous Flowing and Electric Full Bath adds to the benefits of *Water*, the power of *Electricity*. Violent patients are quickly soothed by the double action of this unique fixture.

So involved is the whole subject of Hydrotherapy that Clow maintains an engineering department of hydrotherapeutic specialists. They are ready at all times to co-operate on this subject.



The Bath Hammock—for use in Continuous Flowing Bath

No other is as large a manufacturer of Hydrotherapeutic fixtures. Few others have the Clow background in this field . . . where a number of the important fixtures were originated by Clow engineers.

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is that only a small percentage of the students in these university schools are five-year students. Only one university, Yale, does not give the three-year course. It does not have its own hospital. All others are what might be termed "flying under false colors." In our enrollment of 500 students in the nursing school at the University of Minnesota, only about eighty-five are five-year students. The others leave school with the same standing as any other nurse who passes the state board examination. Naturally, we are proud of our school, and there is no question but that the use of the university laboratories and other advantages mean a great deal to these students. But why should a university give other than regular university work in nursing and not in other branches? The university is the hub of the educational system of the state. It should contribute to the welfare of all the people of the state and this includes the patients in the small hospitals.

How Universities May Help

To accomplish this, the university could set standards for small nursing schools and could provide for schools that meet such standards affiliations in its hospital or in a number of hospitals. The course now covered by three-year students in the university hospitals could be taken by the affiliated students. Graduate students could be trained for administrative work in the graduate school and graduate nurses could be used to supplement students. In this way the university courses could be confined to the regular university students and to the training of nurses for public health work, for administration and for teaching. Thus, the education of nurses in the smaller hospitals would be thrown into the educational system of the state, and the students in approved small hospitals would at least be given fair treatment. Of course, many small hospitals that are necessary to their community could not meet such standards. Some would continue with unapproved schools, training maids and calling them nurses. However, if the university and larger hospitals will seriously train public health nurses and send them into the remote districts, they will be able to relieve the situation to some extent.

Anything the doctor does for the nurse he does for himself. She is trained to help him, and her standards must be raised as his have been if she is to give satisfactory service. This matter of nursing service and nursing education is not the superintendent's problem any more than it is the doctor's problem. It is, in fact, really a public problem. But who is the public, anyway? In medicine, he is the patient, and those in the work should do their part in helping him to get what he is entitled to—good hospital and nursing care wherever he may be. In adjusting this matter the patient must be paramount.

Is It Wise to Sell Hospital Service on the Installment Plan?

Should hospital service be sold on the installment plan? Ernest G. McKay, superintendent, Arnot-Ogden Memorial Hospital, Elmira, N. Y., thinks not. His reasons, as presented at the American Hospital Association convention in Atlantic City, are as follows:

In the commercial world, when the purchaser enters into a contract he knows in advance what it will cost and plans his finances to meet the payments. Except for maternity work, hospital cases are generally not planned and the hospitals have to make the best of conditions.

Commercial firms are dealing with concrete objects that they can recall if the purchaser fails to make his payments. In large transactions, the purchaser is compelled to carry all the various forms of insurance necessary to protect the firms' interests. In addition, the down payment is large enough to cover any loss in depreciation. Hospitals cannot very well give back to a patient his ruptured appendix or his diseased tonsils.

The person who buys from a commercial firm is using the article while he is paying for it, and in this way his debt is continually kept in his mind. On the other hand, as a patient in the hospital he is only too anxious to forget his illness, and as his health improves he has nothing to remind him of his obligation to the hospital.

Because hospitals are community affairs and frequently receive gifts and bequests, they do not wish to make the community feel they are too commercial. For this reason they seldom resort to legal action to force patients to pay their bills. This is an important part of the installment plan. If those who do not pay are not forced to pay, the installment plan is doomed to failure.

Many persons have the idea that it is not absolutely necessary to pay hospital bills if it places a hardship on them. Until the hospitals can alter this impression, it is inadvisable to extend more credit.

Mr. McKay does not believe that it is wise for hospitals to extend installment privileges to all of their patients. Rather he would suggest applying some of the modern business principles to the hospitals' credit departments—such as definite follow-up systems, complete credit information and personal collectors to call at the homes of the patients to see that they pay their bills when they were promised. If, by this method, hospitals can reduce their losses to a nominal figure, then there will be plenty of time later to try out the installment plan.

Filling Hospital Superintendencies From the Nursing Profession

Since the position of hospital superintendent is likely to prove almost the key position in the movement to improve the quality of nursing education, the nursing profession should take over the job of supplying from its own membership a majority of the superintendents of hospitals, Doctor Leonard P. Ayres, statistician and vice-president, Cleveland Trust Co., Cleveland, emphasized in a paper presented at the joint meeting of the American Hospital Association and the National League of Nursing Education in Atlantic City.

"There are now about 7,500 hospitals in this country and their annual expenditures are in the neighborhood of a billion dollars," Doctor Ayres said. "It seems to me doubtful if any other development would so surely and rapidly tend toward the improvement of nursing education as would the general appointment of nurses as administrators of hospitals.

"This would bring the gap that now exists between the school for nurses and the board of trustees. It would at once make available to nurses a large number of more highly paid positions of important status and responsibility. Surely large numbers of nurses are competent to be administrators of hospitals.

"Better schools are going to cost more money, and the money must be provided by the votes of the trustees. The officer having the direct access to the trustees is the superintendent of the hospital. Good strategy would indicate that the superintendent ought to be a nurse."

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Every User is indebted to the hundreds of hospitals who tested it

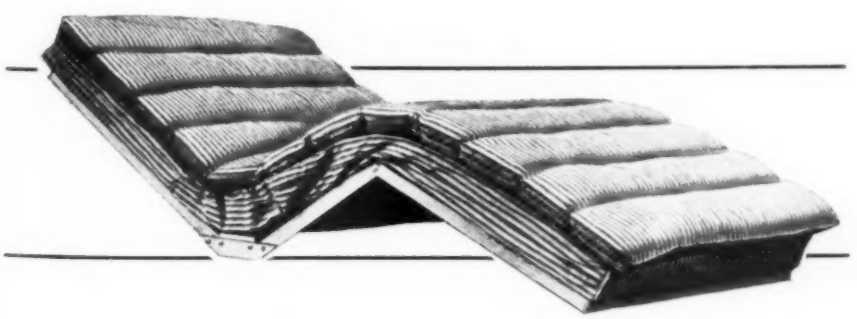
YOU who direct and operate America's splendid hospitals are, to our mind, the most competent and authoritative critics of bed equipment. We can think of no sterner test than to have a bedding innovation run the gauntlet of your critical scrutiny under actual hospital use.

Having the highest respect for your judgment, we asked several hundred of you to pass upon the merit of SPRING-AIR. To us, this new cushion could not be called perfect until you had awarded your approval. We had something new to sell—but we wanted your opinion more than your order.

Never can the world know how gratified we were with the welcome you gave SPRING-AIR. With open minds you enthused over its new principle of spring construction. In it you saw advantages that no other could offer—and you were kind enough to tell us how greatly you appreciated the sanitation, flexibility, economy, ease of handling, and phenomenal comfort of SPRING-AIR

And now with hundreds of renowned hospitals recommending SPRING-AIR—and with the Master Bedding Makers of America associated in its manufacture—this real achievement in modern bed equipment is rapidly attaining leadership. Thanks to your co-operation, SPRING-AIR is meeting the success you predicted for it.

Write to any of the Master Bedding Makers listed in this advertisement for details of the budget and changeover plan which makes it even more economical and desirable to equip all hospital beds now with SPRING-AIR.



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A. J. Logan Company, *Pittsburgh, Pa.*
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Scranton Bedding Company, *Scranton, Pa.*
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A selected group of quality bedding manufacturers associated in the exclusive production of Karr-patented SPRING-AIR Mattress.

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

Instructing Patients in Matters of Special Diet Selection

By MARY A. FOLEY
Director of Dietetics, Kahler Hospital, Rochester, Minn.

IN THE field of pedagogy the expression, "Education for a Changing Civilization," seems to be a keynote. In the field of dietetics, education for a changing civilization is as important.

There are those who eat to repletion every day, yet they lose in weight and in strength. An oversupply of calories cannot make up for a deficiency in minerals and vitamins. On the other hand, excessive amounts of vitamins cannot take the place of an adequate amount of calories.

Eating habits have changed definitely in the last ten years. The following percentages show how the consumption of certain foods has increased, and how that of other foods has decreased in hotels and restaurants since 1917. These figures, based on interviews given to J. O. Dahl, *Hotel Management*, by representative hotel and restaurant operators throughout the country, show that education in matters of food evaluation is imperative.

Increased Consumption Noted

	Percentage
Sandwiches	215
Salads	110
Ice cream	70
Milk, malted	63
Milk, whole	62
Ginger ale	47
Cheese	40
Fruit, fresh	39
Whole wheat, bread, rolls	35
Vegetables, fresh	35
Vegetables, canned	30
Fruit, canned	33
Fruit, dried	12
Cereals, breakfast	34
Fish	33
Grape juice	32
Gelatin desserts	26
Poultry	25
Spring water	20
Coffee substitutes	15
Eggs	11
Pies	5

Decreased Consumption Noted

	Percentage
Meat	45
White bread (table service)	29
Pastry	26
Potatoes	15
Coffee	12
Tea	7
Soup	5

Was it not Mark Twain who said, "It is not ignorance that causes all the trouble in the world but what people know that is not so"? This is especially true in dietetics. As the field of nutrition has enlarged and as

A display case containing sample meals aids in teaching patients to plan their own diets.

CALL IN A SPECIALIST . . .

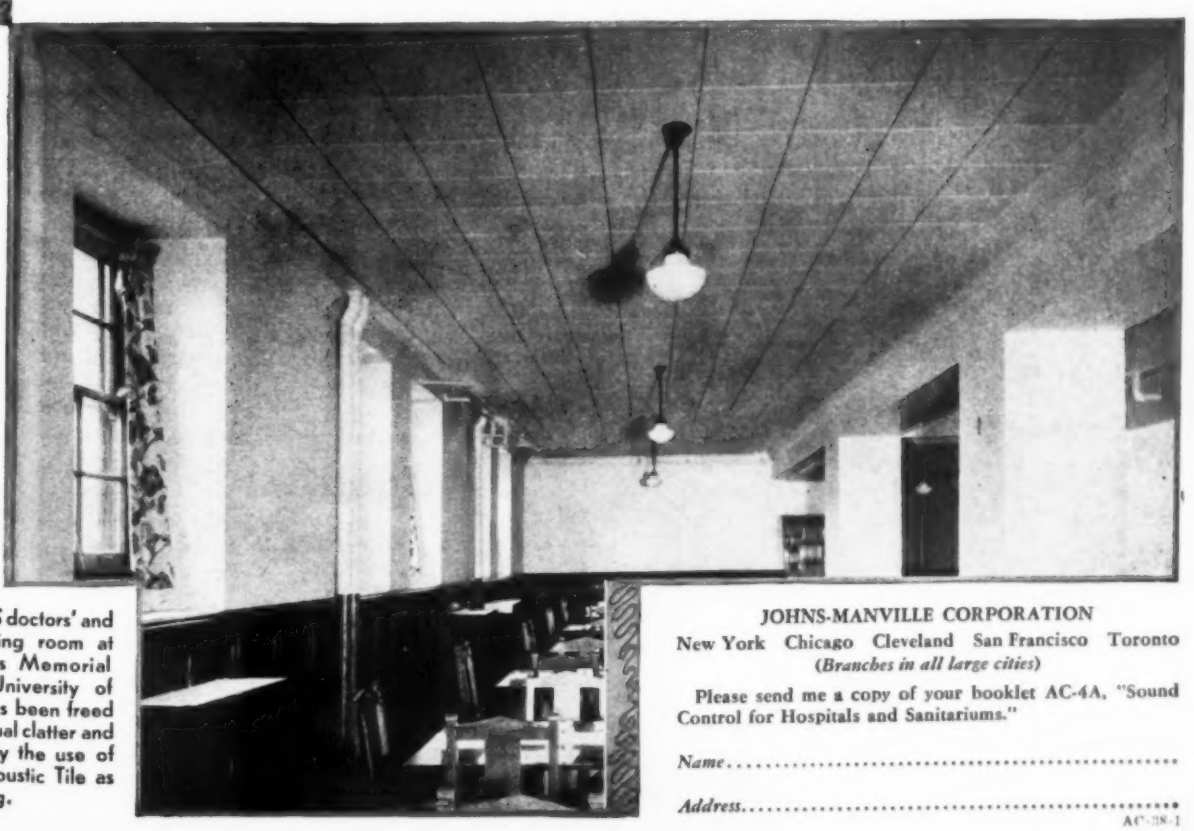
Every Johns-Manville Acoustical Engineer is an Expert on Methods and Materials for Control of Sound.

EVERYONE connected with hospital management knows the importance of the specialist. Perhaps the Chief of X-Ray could make a test for typhoid, but you'd feel safer to have it done by the bacteriologist. Similarly the all-essential matter of sound control in a hospital can be handled correctly only by trained experts. Here is no place for the general practitioner, for the well meaning fellow with one formula for all noise conditions.

Years of experience from pioneer days to the present high development of the science have taught Johns-Manville that the control of sound is indeed a science. First of all, each interior is a new problem. The solution can be reached only by a specialist. Second, the solution always involves the use of special acoustical materials. The "adaptation" of materials actually made for other purposes, the use of trick devices or treatments is as unwise as it would be to dose your patients with patent nostrums.

In all seriousness we suggest that this matter of sound control is one which deserves your closest attention. We believe that after you have talked with a J-M Acoustical Engineer you will realize more fully how interested these men are in providing the maximum of effectiveness in sound control treatment suited to any department of your institution. One of our engineers will consult with you without obligation on your part. You will also want our free book.

Johns-Manville
SOUND CONTROL TREATMENT



THIS doctors' and nurses' dining room at the Billings Memorial Hospital, University of Chicago, has been freed from the usual clatter and confusion by the use of J-M Sanacoustic Tile as the ceiling.

JOHNS-MANVILLE CORPORATION
New York Chicago Cleveland San Francisco Toronto
(Branches in all large cities)

Please send me a copy of your booklet AC-4A, "Sound Control for Hospitals and Sanitariums."

Name.....

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AC-28-1

TABLE I—REQUISITES OF A NORMAL DIET

1. Eat sufficient calories to keep your weight at normal.
   a. If you are overweight bring weight down to normal.
   b. If you are underweight bring weight up to normal.

2. Eat sufficient protein to keep your body in nitrogen equilibrium.

Protein Rich Foods (Each full portion contains 6 grams of protein)

Beef roast, lean	1 slice 4 by 3 by ⅛ inches	60 calories
Beef steak, medium fat	1 piece 1 by 1½ by 1 inches or 2 by 1½ by ½ inches	60 calories
Cheese, American	1 inch cube	90 calories
Chicken, roast	1 slice 4 by 3 by ⅛ inches	60 calories
Cream of corn soup	1 cup	150 calories
Egg	1	80 calories
Fish, halibut	1½ by 1½	30 calories
Ham, boiled, lean	1 slice 4 by 3 by ⅛ inches	80 calories
Lamb chop	1 very small	60 calories
Milk, buttermilk	1 glass	80 calories
Milk, skimmed	1 glass	80 calories
Milk, whole	1 glass	150 calories
Oysters	8 medium	50 calories

3. Eat sufficient bulk to establish a normal bowel movement every day. Fruits and vegetables contain large amounts of residue.

4. The normal diet should include adequate amounts of the mineral containing foods.

Calcium	*Iron*	*Phosphorus*
Milk	Liver	Egg yolk
Cheese	Beef	Cheese
Dried beans	Eggs	Dried beans
Almonds	Spinach	Almonds
Oatmeal	Prunes	Whole wheat
Carrots	Lima beans	Oatmeal
Turnips	String beans	Prunes
Cabbage	Cabbage	
	Parsley	
	Peas	
	Potatoes	
	Almonds	

5. The normal diet should contain an adequate amount of vitamins.

Vit. A.	*Vit. B.*	*Vit. C.*	*Vit. D.*	*Vit. E.*
Butter	Kidney beans	Cabbage, raw	Cod liver oil	Corn oil (yellow corn)
Cod liver oil	Soy beans	Germinated beans	Milk, raw	Germinated beans
Cream	Cabbage, raw	Lemon juice		Milk, raw
Egg	Spinach	Orange juice		Small amounts in many foods
Milk, raw	Tomatoes	Peas, fresh		
Milk and dried whole milk	Wheat embryo	Spinach		
Spinach	Yeast	Tomato		

medical science has made known its discoveries, food faddists have sprung up. These faddists have flooded and continue to flood the country with literature. The food faddists and some of the commercial concerns would have us believe that the panacea for all human ills is found in some particular food or combinations of foods.

Disseminating the Food Gospel

In November, 1922, the Rochester Diet Kitchen, Rochester, Minn., was opened. Its aim was the practical instruction of patients in matters of diet or, in other words, the dissemination of the food gospel. In 1928, 5,600 patients were referred for diets and instructions. In view of the problem of instructing these patients, the following combination of methods has been found to be most helpful: first, five group lectures on "A Normal Diet," "Calories, Their Use and Abuse," "Cooking of Vegetables," "Cooking of Soups and Meats" and "Preparation of Desserts and Salad Dressings"; second, individual instructions to help each patient adjust his diet to his particular condition; third, illustrative material.

At least 90 per cent of the patients who are placed on special diets at the Mayo Clinic tell us that they are busy and have no time to plan special meals and cook special foods. Therefore, a normal diet that meets all the requirements of the body under normal conditions is the basis of our teaching program. In teaching corrective diets, we simply add to or subtract from the normal diet; or in some cases we substitute one food for another. Dr. W. J. Mayo says that 90 per cent of our information is gained through our eyes. The results that have followed the showing of our display case containing sample meals have proved the wisdom of the statement.

This case, as shown in the illustration, is a large one. It was placed near the main entrance of the dining room to make it certain that the patients would see the exhibit as they go in and out of the dining room. The requests by chance visitors for pencil and paper that they may copy these menus testify to the interest the exhibit arouses.

An Adequate Daily Menu

In the center of the case are placed wax models of foods that go to make up what we consider an adequate day's menu for a man who is leading a fairly active life. To the left of the normal meals are reduction meals and to the right are high calorie meals. The chart above the wax models illustrates how this plan was worked out, not

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OF PARIS

Vincent, of Paris, is one of the many famous foreign beauty experts who recommend only Palmolive for the skin. Women are reading his endorsement for Palmolive in 17 leading magazines.

Give her the soap her beauty specialist recommends

She expects you to supply Palmolive... don't disappoint her

TOILET soap is such an intimate thing to a woman! It plays a big part in her beauty toilet, and naturally she considers it an item of the utmost importance.

That's why so many hospitals today are providing Palmolive—the favorite beauty soap of more women than any other kind—recommended by more than 18,000 leading beauty specialists throughout America.

In their own local beauty shops your patients are told to use Palmolive—and only Palmolive—to keep the skin lovely. In the leading newspapers and magazines they are reading how famous foreign beauty experts are recommending Palmolive above all other toilet soaps.

In more than 18,000 leading beauty shops in America, women are told to use Palmolive, and only Palmolive, for a lovely skin.

It is the woman—*not the man*—who chooses toilet soap for the home. Therefore in supplying Palmolive you will please all of your patients, both men and women. Men greatly appreciate Palmolive because it is the soap they are used to at home.

Palmolive, in spite of its quality, is less expensive than comparable soaps. Write today for prices and free samples of our three special hospital sizes. You will be astonished how low they are. And we will print your hospital's name on the wrappers with order of 1,000 cakes or more.

Palmolive in 3 special sizes for hospitals

Miniature Palmolive . . ½ oz.
Petit Palmolive . . . . . 1 oz.
Special Guest Palmolive, 1½ oz.

Your hospital's name on the wrappers with orders of 1000 cakes or more.

FREE! We will gladly send you samples of each special hospital size upon receipt of your letter.

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CHICAGO, ILL.

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NEW YORK KANSAS CITY MILWAUKEE SAN FRANCISCO JEFFERSONVILLE, IND.

only for reduction and high calorie diets but also for ulcer and constipation diets. To the right of the chart is printed one of our keynote expressions: "An adequate diet is the hub around which the wheel of life revolves." To the left of the chart are listed the requisites of the normal diet. These are shown in Table I.

The normal diet which occupies the central section of the case was planned to meet the needs of the patient who has his breakfast and dinner at home and his luncheon away from home. Because of this, the luncheon is simple. It is made up of foods that are available at all seasons of the year.

The esthetic touch has been considered and such foods as tomatoes and carrots have been included because they are colorful and attract the eye.

Essentials for a Normal Diet

A normal diet should have the following composition: calories, approximately 2,400; protein, 70 grams; calcium, 18 grams; phosphorus, 1.35 grams; iron, 12 milligrams. The three menus given here are examples of a normal diet as it may be distributed throughout the day.

Breakfast

Orange.....1 average size
Oatmeal.....3 heaping tablespoonfuls
Cream .....4 tablespoonfuls
Bacon .....3 strips
Toast .....2 slices, thin
Butter.....2 small squares
Sugar.....2 level teaspoonfuls

Luncheon

Poached egg on ½ slice of toast.....
Lettuce.....1/6 of a small head
Tomatoes.....3 slices of average size
Mayonnaise.....1 tablespoonful
Roll 1
Butter.....1 small square
Peach sauce...4 slices and 2 tablespoonfuls juice
Milk.....1 glass

Dinner

Baked potato.....1 average size
Roast beef.....5½ by 4½ by ¼ inches
Gravy.....2 tablespoonfuls
Carrots.....2 heaping tablespoonfuls
Lettuce.....1/6 small head
Asparagus.....5 tips
Mayonnaise.....1 tablespoonful
Roll 1
Butter.....2 small squares
Baked apple.....average size
Milk.....1 glass

To change a normal diet to a reduction diet: Add one egg and a one-inch cube of American cheese; subtract 2 tablespoonfuls cream, 3 heaping tablespoonfuls oatmeal, 1 slice of bread, 4 small squares butter, 3 level teaspoonfuls sugar, 1 roll and 2 tablespoonfuls gravy; substitute 3 glasses skim milk for 2 glasses whole milk, 2 tablespoonfuls mineral oil mayonnaise for 2 tablespoonfuls mayonnaise and 1 raw apple for 1 baked apple. This will give a reduction diet containing: calories, approximately 1,500; protein, 80 grams; calcium, 1 gram; phosphorus, 1.35 grams; iron, 12 milligrams. The menus given here show how this reduction diet may be carried out daily.

Breakfast

Orange.....1 average size
Cream.....2 tablespoonfuls
Bacon.....3 strips
Toast.....1 slice, thin
Butter.....½ small square
Sugar.....1 level teaspoonful
Milk, skimmed.....1 glass

Luncheon

Poached egg on ½ slice of toast
Lettuce.....1/6 small head
Tomatoes.....3 slices, average size
Mineral oil mayonnaise .....1 tablespoonful
Peach sauce...4 slices and 2 tablespoonfuls juice
Milk, skimmed.....1 glass
American cheese.....1 inch cube

Dinner

Roast beef.....5½ by 4 by ¼ inches
Carrots.....2 heaping tablespoonfuls
Lettuce.....1/6 small head
Asparagus.....5 tips
Mineral oil mayonnaise.....1 tablespoonful
Roll 1
Butter.....½ small square
Apple.....1 average size
Milk, skimmed.....1 glass

To change a normal diet to a high calorie diet: Add ½ glass cream, ½ slice graham bread, 1 small square butter, 3 olives and 1 cup cake. This will give a high calorie diet as follows: calories, approximately 3,000; protein, 75 grams; calcium, 1 gram; phosphorus, 1.35 grams; iron, 13 milligrams. Suggestions for planning menus for such a diet may be found in the following menus.

Breakfast

Orange.....1 average size
Oatmeal.....3 heaping tablespoonfuls
Cream.....1 scant half cup
Bacon.....3 strips
Toast.....2 slices, thin
Butter.....2 small squares
Sugar.....2 level teaspoonfuls

Luncheon

Poached egg on 1 slice of toast
Lettuce.....1/6 small head
Tomato.....3 slices average size
Mayonnaise.....1 tablespoonful
Roll 1
Butter.....2 small squares
Peach sauce...4 slices and 2 tablespoonfuls juice
Milk.....1 glass
Olives 3

Dinner

Baked potato.....1 average size
Roast beef.....5½ by 4 by ¼ inches
Gravy.....2 tablespoonfuls
Carrots.....2 heaping tablespoonfuls
Lettuce.....1/6 small head
Asparagus.....5 tips
Mayonnaise.....1 tablespoonful
Roll 1
Butter.....2 small squares
Baked apple.....1 average size
Cream.....4 tablespoonfuls
Milk.....1 glass
Cup cake.....1

To change a normal diet to an anticonstipation diet: Add 2 tablespoonfuls spinach and 1/6 of a head of lettuce, and substitute 2 graham rolls for 2 white rolls. The result is an anticonstipation diet containing: calories, approximately 2,400; protein, 70 grams; calcium, 1 gram; phosphorus, 1½ grams; iron, 15 milligrams. The following menus have been carefully planned for those who need an anticonstipation diet.

NO MATTER WHAT THE

BUSINESS CONDITIONS

may have been recently

THE SACRED HEART HOSPITAL
Allentown, Pa.

Asked for $250,000
And got $332,000

This is but one of six Ward Wells and Dreshman campaigns which concluded during the late financial readjustment—all with from 4% to 32%

OVERSUBSCRIPTION

No, Not Miraculous
just experienced direction supplied by

WARD, WELLS AND DRESHMAN
475 Fifth Avenue
New York City

Breakfast

Orange.....1 average size
Oatmeal.....3 heaping tablespoonfuls
Cream.....4 tablespoonfuls
Bacon.....3 strips
Toast, graham bread.....2 slices, thin
Butter.....2 small squares
Sugar.....2 level teaspoonfuls

Luncheon

Poached egg on ½ slice toast
Spinach.....2 heaping tablespoonfuls
Lettuce.....1/6 small head
Tomatoes.....3 slices average size
Mayonnaise.....1 tablespoonful
Graham roll.....1
Butter.....1 small square
Peach sauce...4 slices and 2 tablespoonfuls juice
Milk.....1 glass

Dinner

Baked potato.....1 average size
Roast beef.....5½ by 4 by ¼ inches
Gravy.....2 tablespoonfuls
Carrots.....2 heaping tablespoonfuls
Lettuce.....⅓ small head
Asparagus.....5 tips
Mayonnaise.....1 tablespoonful
Graham roll.....1
Butter.....2 small squares
Baked apple.....1 average size
Milk.....1 glass

To change a normal diet to an ulcer diet: Add 4 prunes, without skins, 1¼ glasses cream, 1 glass milk, 1 cup cream soup, 2 tablespoonfuls ground spinach, scraped beef, 1 cake, 2 inches in diameter and ⅝ inches thick; subtract 1 orange, 3 strips bacon, 2 squares butter, lettuce, tomatoes, mayonnaise, rolls, roast beef, gravy and asparagus; substitute 4½ slices of white toast for 2½ slices graham bread, 2 tablespoonfuls ground carrots for 2 tablespoonfuls carrots and 1 baked apple without skin for 1 baked apple. The result is an ulcer diet containing: calories, approximately 2,400; protein, 70 grams; calcium, 1½ grams; phosphorus, 1.6 grams, and iron, 14 milligrams. Daily menus for an ulcer diet are suggested here.

Breakfast

Prunes without skin.....4
Oatmeal.....3 heaping tablespoonfuls
Cream.....1 scant half cup
Toast, white bread .....2 slices, thin
Butter.....1 small square
Sugar.....2 level teaspoonfuls
Milk.....1 glass

Luncheon

Poached egg on ½ slice of toast
Spinach, ground.....2 heaping tablespoonfuls
Toast, white bread .....1 slice, thin
Butter.....1 small square
Peach sauce...4 slices and 2 tablespoonfuls juice
Milk.....1 glass

Dinner

Cream soup.....¾ cup
Baked potato.....1 average size
Scraped beef.....
....1 cake 2 inches in diameter, ⅝ inches thick
Carrots, ground.....2 heaping tablespoonfuls
Toast, white bread .....1 slice, thin
Butter.....1 small square
Baked apple without skin.....1 average size

Cream and milk, equal parts, ⅔ glass middle of morning, middle of afternoon and on retiring.

Why a Nurse Should Study Dietetics

The work of the dietitian is closely interwoven with that of the nurse. The nurse's knowledge of and confidence in the diet will have great weight with the patients.

These observations were made by Helen Gilson, dietitian, Pennsylvania Hospital, Philadelphia, in a paper given at the annual convention of the American Hospital Association in Atlantic City, N. J. Miss Gilson goes on to say:

"It is always fruitful of striking results to have the nurses start their courses in nutrition and cookery during the first few weeks of training. Principles, rather than definite recipes, should be taught. In the later courses in dietitics, field work should be assigned the nurses to allow them to get outside perspectives.

"Hospital dietitians realize their great responsibility to the students of the nursing school, not alone in class work and diet kitchens, but in teaching them an appreciation of normal nutrition in their own dining rooms, if the nurses are to be enlisted later as teachers in adapting it to diseased conditions."

New Jersey Provides Amusement for Mental Defectives

Proceeding on the theory that mental defectives are capable of responding to diversion and entertainment, New Jersey hospitals for mental diseases are providing outdoor and indoor athletic contests, music, picnics and motion pictures for patients, according to a statement made public recently by Commissioner William J. Ellis, of the New Jersey State department of institutions and agencies.

Competitive baseball teams from the various wards afford amusement to the players and spectators twice a week, and on Saturdays games between the employees are enthusiastically attended. Many of the women patients are ardent croquet fans and both men and women have found pleasure in the various activities of the track field such as running, jumping and hurdling.

For those who are not athletically inclined and yet enjoy the outdoors, walking parties and picnics are organized. Patients return from these with their arms filled with flowers and leaves and their minds stored with pictures of Nature's beauty.

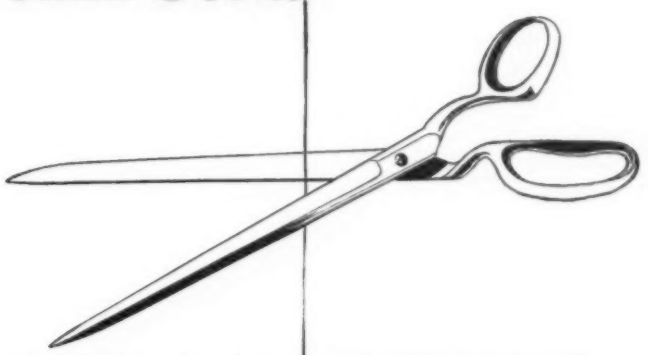
In the winter, bowling, checkers, cards, dominoes and other indoor games are popular with all, while billiard and pool tables provide special recreation for the men. Movies are held the year around and are always attended by as many as the capacity of the recreation hall will permit and the weekly dances are just as enthusiastically received.

Nearly every type of patient seems to respond to the charms of music and consequently it has been provided in many forms: radios, victrolas, pianos, hospital orchestras, group singing, and concerts are generally enjoyed.

At Christmas and Easter special efforts are made to provide entertainment.

Dr. George B. McMurray is in charge of the recreational activities at the Greystone Park State Hospital, while the entertainments of the Trenton State Hospital are under the supervision of Anna H. Furman, assisted by Caroline Furman and Margaret Hess.

Life may hang by a "thread"



IN THE technique of the operation itself, you depend upon your skill as a surgeon. Every moment, almost every gesture, follows a carefully conceived plan. Yet—after the patient has been wheeled from the operating room—his recovery is influenced by another factor beyond your control. In the ligatures you use to suture the wound, life may literally hang by a "thread."

Naturally, the ligatures you use are surrounded with every safeguard after they reach the hospital. But what about their source? Were they processed by an institution of the highest integrity?

For more than thirty years now, the Armour Laboratory has anticipated the requirements of the medical profession for medical supplies of animal origin. An unlimited amount of fresh material is matched by the most modern methods of manufacture. Armour ligatures are known the world over, as the finest produced. They are strong—smooth—sterile and uniformly absorbed. They can be obtained in all the standard types and sizes. Have us send you samples.

Whenever a case indicates the use of pituitary liquid or concentrated liver extract, you will find the Armour products equally dependable.

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HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by C. W. MUNGER, M.D., Director, Grasslands Hospital, Valhalla, N. Y.

The Buying and Storing of Coal —Two Problems

PURCHASE and storage of coal are problems containing almost as many variables as the problem of deciding what fuel shall be burned or what type of heating plant shall be installed. Once the decision to burn coal is made the hospital superintendent is then confronted with the problem of purchasing the most economical coal and storing it with the least expense and danger to his institution.

Primary in importance in the purchase of coal is the heating value of the coal, because the hospital buyer seeks only to secure the greatest number of heat units at the lowest total cost in the form best adapted to a certain power plant. Reference to Bulletin No. 123 of the Bureau of Mines will give the B. t. u. in coal from every district. A British thermal unit is the quantity of heat required to raise one pound of water one degree Fahrenheit.

But the number of B. t. u.'s in coal as received and in dry coal may vary considerably. Since there may be considerable moisture in coal as taken from the mine, car or wagon, it is better to make the analysis after all the moisture has been removed. This is done by placing the sample in a drying oven. The percentage of ash in a dry sample is larger than in the same sample as received, and there are more B. t. u.'s in a pound of dry coal than in a pound of the same coal as received.

It therefore becomes necessary to transpose B. t. u. from the "as received" basis to the "dry" basis and *vice versa*. Two formulas which may be followed are as follows: To transpose B t. u. on the dry basis to B. t. u. as received, multiply B. t. u. by 100 less the moisture content; to transpose B. t. u. as received to dry B. t. u., divide the B. t. u. by 100 less the moisture content.

How to Reduce Transit Costs

Transportation facilities are probably next in importance. Since freight charges are a large element in the total cost of coal, a hospital near the bituminous fields of Illinois cannot afford to buy anthracite coal from Pennsylvania. If the mine upon which the hospital depends is at one end of a short, direct route and the hospital is at the other end of the line, the hospital profits in many ways. The amount of coal in transit is greatly lessened as well as the amount of working capital thus involved. Stop orders are effective more promptly and the hospital begins to receive coal more quickly after shipping is resumed.

The amount of ash produced by a coal is important. If ashes must all be moved by hand and hauled away by a truck, the hospital cannot afford to buy coal which is unduly high in ash. If, on the other hand, the hospital has an automatic ash hoist and can dispose of ashes at little cost, or even receive payment for their use in the manufacture of cinder blocks and tiles, it can better afford to buy coal containing 20 per cent ash and 10,000 B. t. u., costing $3 per ton delivered, than to buy coal containing 10 per cent ash and 10,000 B. t. u. at $3.50 per ton delivered. This is true because the B. t. u. is the number of heat units in a pound of coal, and not the number of heat units in a cubic foot or a cubic yard. If the heat units are in usable form, the extra volume of ash simply acts as a harmless filler.

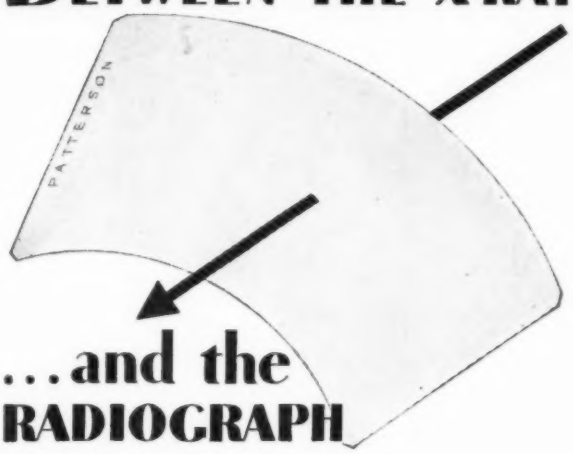
Coal Has Different Heating Values

If the combustion chambers are constricted or if it is necessary to avoid excessive smoke, it is well to eliminate those coals that run high in volatile matter which is discharged from the smokestack in the form of smoke. If the heating plant is not equipped to burn all the volatile matter in the coal selected, all the volatile matter not burned is a loss. The proper combustion of coals high in volatile matter requires such expert care that in most cases it is not wise to purchase such coal.

The fusing point of ash is of great importance in certain types of high pressure boilers. If the boiler is equipped with a traveling grate for the automatic stoking of coal, the fuel should have a high ash fusing point, since the fusing of the ash will tend to clog the efficient operation of the grate. If the boiler is equipped with an underfeed stoker, efficient operation of the apparatus depends upon a low fusing ash because all the ash must be pulled out of the front of the furnace. In that case the ash that fuses into a great clinker may be easily removed without letting the steam down. But the ash that remains in small bits or runs like molasses adds time to the cleaning of the furnaces, makes more smoke and causes the loss of heat because of the open furnace doors.

Contrary to the general impression, anthracite coal does not have greater heating value than any other coal. In fact, although it is an almost ideal domestic fuel, it is not well adapted to steam raising unless an absolutely smokeless coal is needed. Coal may be arranged according to hardness, as follows: anthracite, semianthracite, semi-

BETWEEN THE X-RAY



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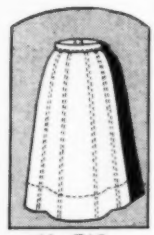
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SPECIALISTS IN
NURSES' APPAREL AND HOSPITAL GARMENTS

bituminous, bituminous and lignite. Coals having the greatest heat value are arranged here in order of their importance: semibituminous, anthracite, semianthracite, bituminous and lignite.

The most widely known semibituminous coal is the Pocahontas coal mined in McDowell County, W. Va. The name, semibituminous is really a misnomer because this coal is of higher grade in every way than bituminous. The fuel ratio (fixed carbon divided by volatile matter) ranges from 3 to 7. The relatively high percentage of fixed carbon in semibituminous coals makes them nearly smokeless when they are burned properly. Consequently, most of these coals go into the market as smokeless coals.

The best coal of this type has a heating value greater than that of any other rank or grade and consequently is best adapted to raising steam for hospitals. The average theoretical B. t. u.'s per pound of semibituminous coal are as shown in the following table:

Broad Top, Pa.	14,820 B. t. u.
Clearfield, Pa.	14,950 B. t. u.
Cambria, Pa.	14,450 B. t. u.
Somerset, Pa.	14,200 B. t. u.
Cumberland, Md.	14,400 B. t. u.
Pocahontas	15,070 B. t. u.

The larger hospitals especially will profit through the purchase of coal on broad specifications covering at least the following points: maximum ash content; minimum B. t. u.; maximum sulphur content; maximum volatile matter; maximum moisture content; minimum content of fixed carbon.

Included in the contract covering payment, should be a paragraph covering variations in heat value of the coal received. This paragraph might read something like the following:

"Considering coal on a 'dry coal' basis, no correction in price will be made for variations of two per cent or less in the number of British thermal units from the guaranteed standard of 14,200. That is, if the B. t. u.'s run between 13,916 and 14,484 no correction in price will be made. Where the variation in the B. t. u.'s exceeds two per cent of this standard, the following formula will determine the payment price:

$$\frac{\text{B. T. U (coal delivered)}}{14{,}200} \times \text{(contract price)}$$ equals the payment price. (In other words, the payment price shall be the same percentage of the contract price as the actual B. t. u. is of the contract B. t. u.)

"Correction price to be figured to the nearest tenth of a cent."

Deliveries Should Be Weighed

A similar principle may be applied by provision for premiums to be paid on coal deliveries with ash content lower than the maximum, and for penalties to be exacted on deliveries with ash content above the maximum.

If bids are taken on coal, it is futile to compare specifications or prices with those of another hospital. The type of heating unit, the type of firing, the type of coal demanded, the ease in filling the bins, the quantity demanded, the speed of delivery, the index of purchasing power of the dollar at different times and the method of payment are some of the variables that make comparisons of little value.

It will pay a large hospital to weigh every ton of coal received. If the coal is handled through a coal yard and all trucks are weighed at both ends of the route, there is little danger of being defrauded. If the power plant is located on a switch track, the installation of a railroad scale makes it possible to check deliveries of coal easily.

DETAILS ON REQUEST

More complete details about this improved Niedecken Knee Control Surgical Lavatory will be sent on request: also names of hospitals using it, for reference. Write now.

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SURGICAL LAVATORY

New Knee Control

Wall bracket support, instead of attached to floor, the picture here shows, is more practical for the purpose. Allows more foot freedom, and ease in operating. Another Niedecken Surgical Lavatory advantage is that it can be added to and used with any type of basin fixture; making it universal and economical to install. Now used in many prominent hospitals everywhere.

Arrange now to have installation made in your hospital: for the conveniences and advantages of continuous water flow, temperature regulated as desired and both hands free from operating water control.

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The Perfect Machine for Hospital Use

With this machine, hospital floors can be kept clean, shining and immaculately sanitary and the job can be done in an amazingly short time. Interlocking 9" brushes eliminate the usual unfinished center strip and also prevent the machine running off at a tangent. Sixty-five pounds direct weight on brushes maintains even tension and pressure.

THE NEW No. 18 (18 inch) BURRICH (Burr-itch)

MECHANICALLY SILENT!

Encased, grease packed, spiral gears make this machine unusually quiet and therefore, especially desirable for hospital use. The horizontal motor permits it to be used under desks and beds without moving them. Although it is unusually fast, there is no splashing. The brushes protrude ½" beyond the machine so that there are no unfinished edges, and in modern buildings where there is no quarter-round near the floor, work can be done flush up to the wall. You cannot appreciate the unusual advantages and desirability of this machine until you have tried it out.

Complete System of
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GUARANTEED FOR FIVE YEARS

We are so thoroughly satisfied that in competition this machine will prove to be the one you want, that we will send it to you for three days trial use, and if, after you have given it a thorough work-out, you do not think it is the best you have ever seen or used, send it back to us by freight collect. We know that you will be literally astonished at its speed, thoroughness, ease of operation and quietness. Wire, phone, or write us and one will go forward to you for trial at once. State current and type of floor to be used on.

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THERAPEUTIC *Value* in Good Coffee

Experimental research by The Massachusetts Institute of Technology proved coffee is a pleasant stimulant to mind and muscles; without injurious after-effects.

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Continental is blended specially for institutions only, and roasted, ground, and packed fresh, daily. It is full-bodied, delicious in flavor and aroma.

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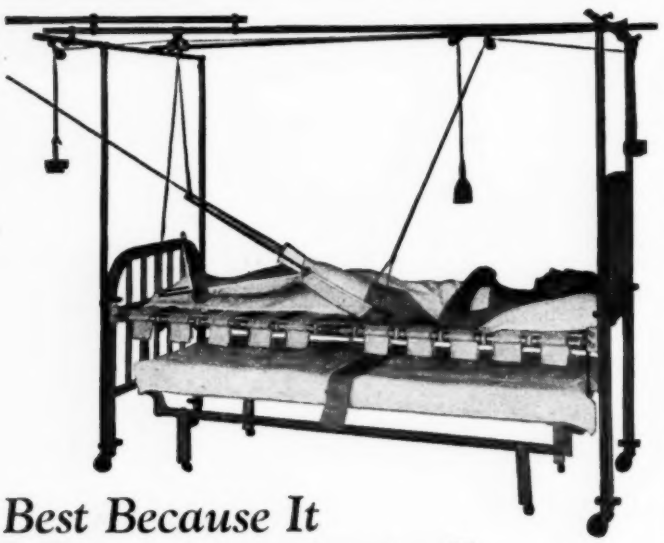

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Only the ZIMMER Fracture Bed has these great superiorities. A non-removable crank. Gearing encased in housing and fully greased to allow long life and smooth operation. Special windlass rollers that afford ample leverage for tightening webbing straps which support the patient when mattress and springs are lowered. Coil supports trussed under springs where patient's weight is greatest. Four inch casters with brakes. The ZIMMER bed is best for hospital use. Investigate its many merits.

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ZIMMER MANUFACTURING CO.
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If it is impossible to weigh the coal, the weight may be estimated with a fair degree of accuracy by noting the space taken. For bituminous coal, it may be figured that the average weight of one cubic foot will be from 47 to 55 pounds. Knowing the cubic foot content of the hospital's bins, the administrator can easily estimate the approximate weight of the coal delivered. The average weight of anthracite per cubic foot varies from 53 pounds for buckwheat to 57 pounds for egg.

Preventing Spontaneous Combustion

Coal storage, especially for hospitals remote from coal fields or having poor transportation facilities, is very important. Prepared sizes of coal from almost any district can be safely stored if the sizes are not mixed in the pile, because the air can circulate freely through the mass of the coal pile and thus carry off any surplus heat as fast as it is generated. The determining factor is not so much the kind of coal as it is the size and preparation of the coal before it is delivered to the hospital.

Since spontaneous combustion is due to the heat generated by the oxidization of the coal, there are two chief methods of preventing or retarding the generation of this heat: to exclude all air from the pile, or to see that the pile is so well ventilated that the free circulation of air will carry off the heat as fast as it is generated. The partial ventilation of a coal pile seems to aid spontaneous combustion. Therefore, the addition of even the most elaborate ventilating systems would seem to add to the danger because it is manifestly impossible to ventilate the whole pile unless the pile itself is so constituted that the air freely circulates as it does in a pile of egg coal.

The presence of straw, bits of wood or oily waste increases the tendency to spontaneous combustion. The presence of a steam pipe or a sewer carrying warm sewage under or near the coal pile often raises the temperature just enough to cause fire. It is impossible to set any definite temperature which is the maximum for safety and which will apply to all coals under varying climatic and storage conditions. One safe rule is to be ready to move the coal if the temperature reaches 150° F., and to load it out if the temperature rises as high as 175° F.

Fighting Fires in Coal Pile

Should a fire start in a coal pile, water is sometimes used to advantage in fighting the fire. One method is to locate the spot by driving test rods into the pile, and then to dig a pit one or two feet deep over the center of the trouble. By driving and pulling pointed rods or open pipes from it down into the heating mass and then filling the pit with water, the fire may be quenched at its very center. At the same time, if the fire is large, the whole heated part may be surrounded with a water curtain made by digging a ring ditch one or two feet deep and perforating its bottom with a row of holes. This ditch, like the central hole, is kept full of water from the hose and, if there is any tendency for the fire to be driven outward from the center, it is quenched by the water curtain.

Generally speaking, enough coal should be placed in storage to serve as an insurance against failure to receive regular shipments—usually thirty to sixty days' supply. Only under unusual circumstances will it pay to accumulate a larger stock pile. Usually the rehandling cost, degradation of heat value, interest and other charges will offset any theoretical saving that has been achieved by the accumulation of large stocks of coal by the hospital.

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IF all the items in our Rubber Sundries Department could be spread out for your inspection what a big display it would make! Table after table—holding 200 items—Gloves — Medicine Droppers—Nipples—Breast Pumps—Hot Water Bottles—Mats—Tubes and Tubing — Sheetings, etc. etc. How simple our service makes the purchasing of your requirements—all the essential facts about these items, with a large number of illustrations, gathered together into seven easy-to-read pages.

That is probably one reason why our Rubber Sundries Department has always proved so popular among Hospital Superintendents. Our records indicate that a copy of this New Catalog is now in the hands of every Hospital Superintendent in the country. If, by chance, your copy did not reach you, tell us. We'll be glad to mail another.

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The Modern Sanitary Diaper

Downee-Didees are much more practical and economical than the old fashioned diaper. Dee-Dee Pads, soft, fluffy, absorbent filler, shaped to fit, protects the babies' delicate skin and absolutely prevents diaper rash. They have been thoroughly tested and approved by maternity hospitals and physicians everywhere.

Saves Nurses' Time

Downee-Didees are easier and quicker for nurses to handle than the ordinary diaper. When soiled or wet, the Dee-Dee Pad is quickly removed and easily disposed of as ordinary tissue. No soiled diapers to handle.

Reduces Labor Costs

Because Downee-Didees are so easily and quickly handled, and because they save the handling of many other pieces of laundry by preventing pinning blankets and bed linens from becoming soiled, they save time and labor.

Cuts Laundry Expense

Recent tests in a maternity hospital* show that *each Downee-Didee used saved 2½ pieces of laundry,* from 35 to 38 pieces for each baby per day. The reduction of laundry costs, labor costs and the saving in nurses' time show a saving over the small cost of Downee-Didees.

**Name of hospital and details of tests conducted will be furnished upon request. Downee-Didees are made in several sizes for babies and in adult sizes for persons who are incontinent. Write for information.*

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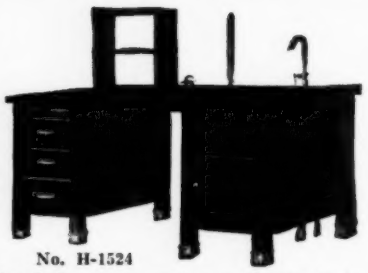
LABORATORY DESK FOR TECHNICIANS

The Kewaunee Technician's Laboratory Desk is a good one for the hospital laboratory or for the doctor's private laboratory. It is compact and convenient—top 30" x 66". Two drawers, open shelf, cupboard, double shelf top, stone sink. Piped for gas, water and waste to floor line.



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Used in a vault, the construction is such that the boxes are all water tight, so formed that water from a sprinkler system will play over the boxes, dropping on the tops of all boxes.

Investigate the H-D FILM FILE for answering your filing requirements.

Write for descriptive circular

THE HUNT & DORMAN MFG. CO.

5100 ST. CLAIR AVE.

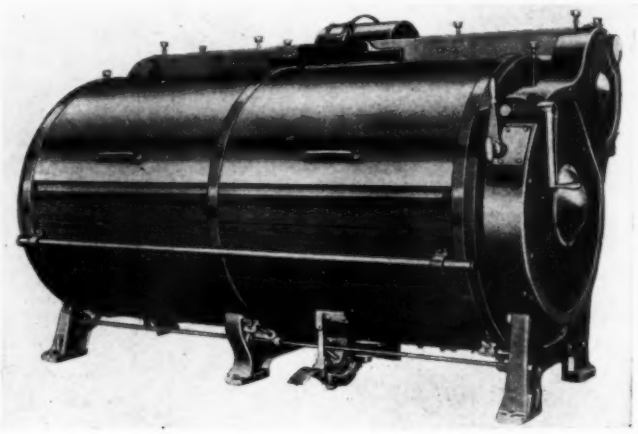
CLEVELAND, OHIO

New Clear Top Extractor Is Perfected

As a result of two years of research and study, including practical tests in several large laundries, a new extractor, is making its début in the laundry field. The machine brings into the laundry field distinctive features and a great many new advantages in the clear top design, it is announced.

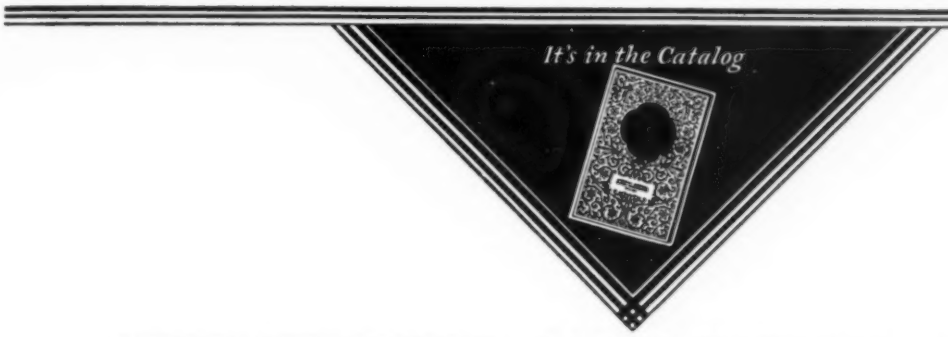
The extractor is offered for the present in 48-inch and 50-inch diameters. Various other sizes are to be added to the line, however. The 48-inch and 50-inch diameters, however, present increased basket capacities for machines of their size. Deeper than commonly called "extra-deep" baskets, the 48-inch machine has a depth of 21 inches and a capacity of more than 275 pounds.

For two years the engineers who perfected the new model have sensed a demand for the elimination of unneeded current in underdriven extractor operation. They have endeavored to design a machine whose curb was independent of the basket, thereby permitting three distinct advantages: (1) an absolutely stationary, vibrationless curb; (2) a reduction in the amount of electricity consumed brought about by the fact that no current would be necessary to motivate the curb; (3) an immobile curb that would not jar or move, resulting in the tearing away of flooring. These ends have been accomplished, it is pointed out. Only a 5 h. p. motor is used to drive the basket of the extractor. This is brought about by two factors: the centrifugal clutch in the pulley which allows the motor to attain full speed independently of the basket, thereby reducing current to one-third of what would be required otherwise, and the elimination of current generally used to move the extractor curb.



Friction blocks in the pulley of the extractor allow for slow starting and greater extraction in the first few moments of operation. It is pointed out that quick starting hinders rather than enhances fast extraction. Quick starting tends to jam the clothes against the basket's sides, setting up a hard wall through which it is almost impossible to throw off the moisture in the clothes nearest the center of the basket. Slow starting prevents this jamming and enables the extractor to throw off 35 per cent of the moisture within the first three minutes. As the result of this, plus its greater speed—the 48-inch basket operates at 800 v. p. m.—extraction generally requiring fifteen minutes is now done in eleven minutes. Another feature that makes possible fast extraction is the double-sized 6-inch tangential outlets. These are so designed and placed at such an angle that they create the action of a centrifugal blower, thereby drying by air as well as by the centrifugal removal of water. As the

AMERICAN HOSPITAL SUPPLIES



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IT'S true, and we know it's true, that much of the success of our hospital customers depends upon the *character* of the things we sell to them.

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The AMERICAN HOSPITAL SUPPLY CORPORATION

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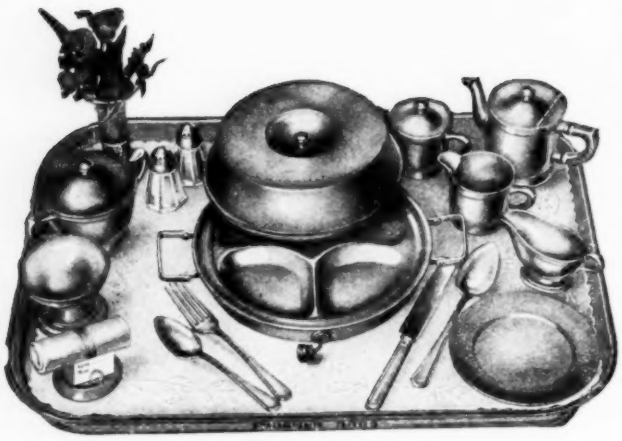
THORNER'S
Silver Service



Thorner's Silver Service is made of 18% Nickel Silver with a quadruple silver plate. Wears a lifetime. Replacement through breakage is forever eliminated. It is never affected by wear or polishing.

Illustration features Thorner's Improved Three-Compartment Hot Water Plate. Tea Set is seamless with inside rounded bottom and reinforced band around top. Covered Soup Cup with Silver Soldered Handles. Sherbet Dish, Gravy Boat, Individual Napkin Ring and Tray Marker, Bud Vase, Salt and Pepper Shakers and Superior Grade Sectional Flatware.

THORNER BROTHERS

Importers and Manufacturers of Hospital and Surgical Supplies

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curb and motor are stationary there are no flexible connections to either, and the crystallization and the resultant quick deterioration of the connections are in this way eliminated.

The extractor is solid and strong. All of the castings are generously oversized to allow for the strains and stresses of operation. Another improvement is the ease of loading and unloading. The legs of the machine have been spread sufficiently far apart so that the operator may draw his truck lengthwise alongside the curb and also have ample working room for himself. Considerable saving in time is thus made.

Two other features of the new extractor are the accessible brake and the oscillation safety switch. The brake is placed on the driving shaft at the top of the machine so that there is no necessity of raising the basket out of the curb to adjust the brake or remove the lining. The safety switch, which is also easily accessible, automatically shuts off the machine if it is too greatly out of balance. However, it will require a considerable out of balance load before the machine stops itself, since it will handle an out of balance load of more than 40 pounds.

The new extractor's operation is automatic. The timer is set for a determined run and at its completion the motor automatically shuts off, the brake sets and the pilot light is extinguished. The timer is entirely mechanical. The door of the extractor cannot be opened while the basket is in motion, or the basket started until its aluminum cover is closed.

A New Automatic Gauge Glass for Water Sterilizers

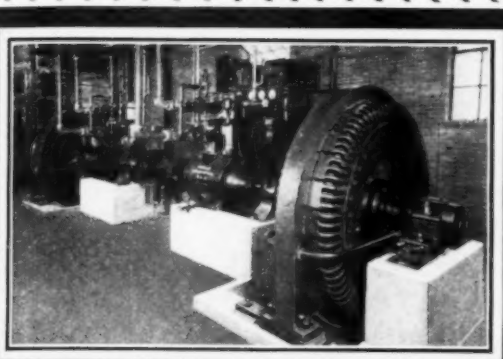
An automatic sterilizer gauge glass for water sterilizers has been perfected and is now on the market, according to a recent announcement. The announcement describes the device as follows:

In sterilizing water it has been heretofore necessary for the nurse to open the valves leading to the gauge glass of the sterilizer and during the course of sterilization to pass live steam through it. This operation is hazardous since the gauge glass is at a substantially low temperature and the steam often breaks the glass. The steam being under pressure is likely to scald or burn anyone near the apparatus. Furthermore, steam is not always a perfect sterilizer and this method is therefore inefficient. The automatic sterilizer gauge glass solves this problem. It ensures perfect sterilization of the gauge glass gradually and normally during the sterilization process and eliminates as well the danger of breaking the glass and causing serious injury.

This device also removes the necessity of the nurse's having to make a separate operation of sterilizing the gauge glass, since the water in the gauge glass and in the sterilizer proper is in direct contact. It is a well known fact that the water in the gauge glass must be sterilized or it will immediately reinfect the water in the sterilizing tank, and of course the water in the gauge glass cannot be sterilized unless the water circulates freely from the tank.

In operating the automatic sterilizer gauge glass, the water is placed in the sterilizer tank, it being of the same level as both the tanks in the gauge glass. As heat is applied to the heating apparatus, the temperature of the water in the funnel and around it will rise first and, as a result, the water in the funnel and in the pipe attached to it will be driven upward. Portions of the water, therefore, will be continuously driven upward into the gauge glass and will run down inside from the top, rais-

IT MUST BE COLD !



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10-30

This New Catalogue of Special Foods adaptable to the Ketogenic Diet should be of interest to every Dietitian.

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This booklet lists the products that are being used to supplement the regular foods allowed in the high fat diet. A complete description of all the foods is given together with the food values. Many hospitals and clinicians have found these foods most useful in computing a comfortable diet for their patients.

CALCULATED RECIPES

At the back part of the booklet, many recipes are calculated with low carbohydrate, but high fat content. Many suggestions are offered for the use of cream, butter and other fats. You will find this book valuable to your patient in helping him to vary the food preparation of a very difficult and monotonous diet.

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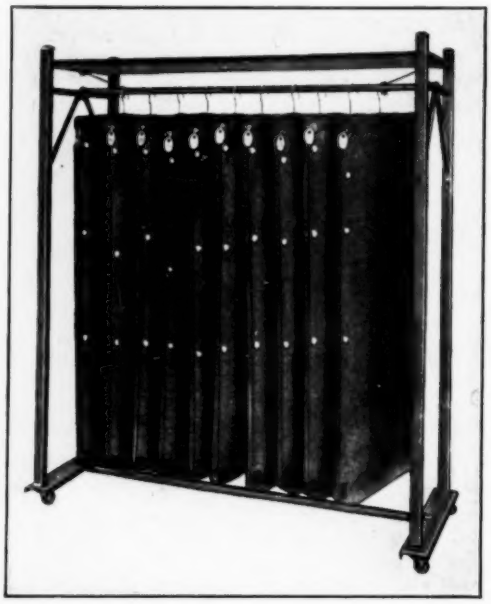

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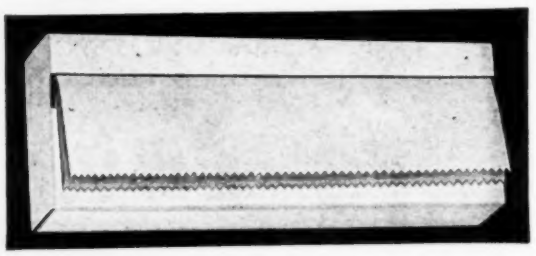

No cabinet required—a dispenser in itself that can be carried in the pocket.

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ing the level of the water in the gauge glass temporarily. This, however, will be constantly corrected as the water seeks its proper level in relation to the level of the water in the sterilizing tanks. Consequently the water from the upper end of the gauge glass will gradually pass down through the fitting at the bottom of the sterilizer body and from there through the opening at the bottom of the sterilizing tanks. A complete circulation of water in the gauge glass is therefore assured the user at all times.

New Roller Screen Is Attached Directly to Casement Windows

Application of a roller screen directly to a steel casement window is the principle that has been used in the development and manufacture of a new casement and screen unit. The new product has been evolved in the light of suggestions from leading architects, builders and screen manufacturers, and is designed to replace adaptations of various unrelated devices for screening outward swinging steel casements.

The screen is contained in a small, inconspicuous hexagonal case at the top of the ventilator portion of the window. When the casement is closed the screen is out of sight. When the casement is opened, the screen may be pulled down. It locks at the bottom of the window, the sides sliding in grooves. A spring roller in the case holds the screen in tension and acts in the manner of a shade roller in raising the screen.

This new screen does not in any way interfere with the operation of the window's swinging sections and imposes no limitations on the beauty of casement hardware design. It furnishes full protection to curtains and draperies and adds to the appearance of the window. A feature of particular beauty on the screened casement is the steel fittings.

The cost of the new screen is said to be about one-third that of unrelated screens purchased separately from the window.

A "Safe" Safety Pin and How It Operates

A "safe" safety pin has been invented.

Dr. Woodward Colby, St. Paul, Minn., is the inventor of a safety pin that is so constructed that if it is inhaled or ingested it offers no greater problem than does a smooth foreign body. In a recent experiment the new pins were fed to a year old fox terrier at intervals of twelve hours so that there would be two or three pins traveling through the digestive tract at a time. The pins used were of varying sizes and were open. Each day the x-ray showed the positions of the pins to be that of normal progress through the alimentary canal.

Contrast this with the records of the old type safety pins. Medical records show that approximately 12 per cent of foreign body injuries to the esophagus and air passages are due to the safety pin, in the majority of cases open, according to Doctor Colby. Because of its size and shape, an open safety pin has difficulty in passing through this portion of the digestive tract. If the pin passes into the stomach it may be removed with the gastroscope or it may pass into the intestinal tract. If the pin will pass the pylorus and the duodenal-jejunal flexure it will usually pass the remaining portion of the tract. Careful watching is necessary, and if it becomes lodged in the

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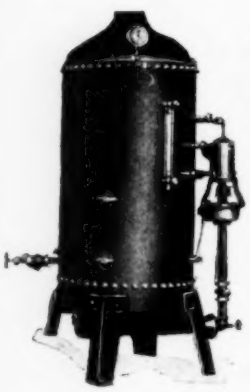
BOILERS



The gas fired boilers are built in sizes from ½ H.P. to 30 H.P. and are used generally in hospitals as auxiliary boilers.

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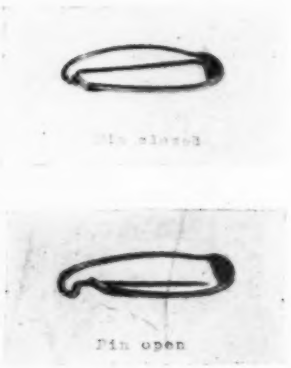
intestine or if peritoneal irritation is noted, surgery must be considered. In the air passages the pin may lodge at any point from the pharynx to the small bronchi. Death, the result of puncture of the esophageal or tracheal wall, is usually due to acute mediastinitis, hemorrhage following puncture of the great blood vessels, pericarditis, pneumonia or pleuritis. Shock, asphyxia and acute edema of the lungs due to trauma in the operation of removal are at times the cause of death.

"When an article in daily use makes necessary special instruments to deal with its effects, when medical books devote chapters to the care of the injuries it causes, it seems to be time to do something about eradicating the cause," Doctor Colby writes. "No amount of writing can accomplish the removal of the danger of the safety pin without changing the pin itself. And no change will take place in the safety pin unless it incorporates the modern demand for convenience." This Doctor Colby believes he has successfully combined in his pin with the features of safety.



This safety pin offers no greater problem on ingestion than any other smooth foreign body.

The pin may be described as follows: Suitable spring wire is bent to form a closed loop and a reentrant end of the loop becomes the pin portion. Near its proximal end this pin prong has a small sharp bend which forms a lock. A sliding eye is arranged to allow for opening and closing the pin. When closed the pin is under tension; the pin end of the prong is held securely in the keeper, and the sliding eye is locked in the bend at the proximal end.

To open, the pin is pressed on its sides. This releases the eye from its lock and the pin snaps open. To close, the pin is pressed on its ends and it snaps shut. To insert, the pin is grasped near its proximal end and pressed laterally. By its construction the pin point is always guarded. The fingers of the operator are protected and injuries to the wearer are prevented if the pin should open in the clothing. Being a closed link, the pin cannot be pulled apart. It operates quickly and easily, snaps open and snaps shut and is best used with one hand.

It is comfortable because it always lies flat. It may be used conveniently in every instance where the old safety pin could be used—such as fastening diapers, blankets, drainage tubes and garters—but with the advantage for the new pin in every case where the pull is put on the pin. In the old safety pin, tension or pull on the pin causes it to spring apart. In the new pin tension will serve to strengthen its hold. The point of the new pin is always guarded.

The pin has been tried with success in the pediatric department of the Charles T. Miller Hospital and in the Children's Hospital, St. Paul. With its use in these hospitals the following advantages have been noted: It is safe; it is convenient, being easily and quickly opened and closed, and operated with one hand; it protects the fingers of the operator; it protects the wearer; it is comfortable because the pin always lies flat; it is strong, and hard to bend out of shape; it is a complete pin.